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Junior High School
Curriculum Guide
OF
HEALTH
(1961 Edition)



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Junior High School

Curriculum Guide

for

HEALTH

(1961 Edition)



PROVINCE OF ALBERTA
Department of Education

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INTRODUCTION

I. General Statement

Health education in the Junior High School must be concerned with encouragement of attitudes towards living that will be reflected in the development of sound health habits. To establish a foundation upon which such habits can be built a health course should provide basic information in the following areas:

- (a) Physiological growth and development.
- (b) The great discoveries which are landmarks in our progress toward better health.
- (c) Scientific methods which are gradually eliminating communicable diseases.
- (d) Body structures and how they function.
- (e) The science of nutrition.
- (f) Federal and provincial public health services and their contributions to the welfare of Canadians.
- (g) The principles of mental hygiene as guides to the development of desirable personality traits.

II. Primary References

Grade VII **For Healthful Living**: Jones, Morgan and Landis

Grade VIII **Good Health for Better Living**: Jones, Morgan and Landis

Grade IX **Building Health**: Williams

III. Secondary References

Enjoying Health: Jones, 1952

This book is one of a series and is to follow *Building Health*, the Grade IX primary reference. However, it contains excellent supplementary material for Units I, III, and IV of Grades VII, VIII and IX with suggestions for both individual and group work. Though it has some material for Units II and V it will prove less useful for these units. Since the book is American, there is no material on the public health picture in Alberta and Canada.

Health and Safety for You: Diehl and Laton, 1954

The approach of this book is general with the authors anticipating committee work by classes. The first two chapters provide an excellent introduction to the study of health. These are followed by two chapters relating to safety and first aid that will prove very useful in discussing Unit V on safety in Grades VII to IX. The major part of the book deals with the various functions of the body, how each may be maintained at a high level of efficiency, and the common malfunctions and diseases sometimes associated with them.

The chapter on stimulants and narcotics provides information on tobacco that will provoke good discussion. Control of

micro-organisms, the prevention of communicable diseases and the need for a health inventory are adequately dealt with.

Understanding Health: Goldberger and Hallock, 1950

A well-illustrated book written in a clear, interesting style and at a level that junior high students will generally understand. This book provides good coverage in such topics as the endocrine glands, the control and prevention of disease, and recent discoveries in health. For additional information on safety and care of the sick and injured the student will find the book very helpful. The material on antibiotics will add to the understanding of Grade VIII students in the section of Unit II relating to how man fights disease. American statistics on leading causes of death can be compared with Canadian statistics in Unit II, Grade IX.

Altogether, it will prove an excellent source of information to supplement the primary references, more particularly in Grades VIII and IX. Teachers will like it for the introductory exercises and for its excellent glossary.

Additional Secondary References, Grades VII, VIII, and IX

1. FIRST AID TO THE INJURED: St. John Ambulance Association

The letters or symbols used with general references at the end of the units are explained as follows:

* This pamphlet has been distributed by the Guidance Branch and a copy should be available in the school.

DPH —Copies are available from the Department of Public Health Education Branch.

(1) —The number in the brackets indicates the number of copies per classroom that are available for distribution.

GB —Available from the Guidance Branch, Department of Education.

FA —Few copies still available until present supplies are exhausted.

T-ref —Teacher's Reference Book.

S-ref —Secondary Reference Book.

S-lib —A book that may be in the school library because it is or has been on the reference list for some other subject or on the free-reading list.

SBB-so—Available from the School-Book Branch on special order.

IV. Teachers' Reference—

It is felt that a teacher offering the course at any or all grade levels should have access to the following reference:

Health Observation of School Children—Wheatley and Hallock

GRADE SEVEN—UNIT I—PERSONAL HEALTH INVENTORY

INTRODUCTORY STATEMENT

Since this is the first unit of the course in health, emphasis is placed upon the need for developing good health habits. **As an outcome of the work of this unit the student should acquire the understanding that simple care and sound health practices aid one's general appearance and physical condition.** He should be encouraged to take pride in grooming and personal habits.

PRIMARY REFERENCES

For Healthful Living, Pages 45-48, 53, 60-72, 117-140, 192-193.

Teachers' Resource Book

CONTENT	TEACHING SUGGESTIONS
I. POSTURE	<p>At the beginning of the unit the teacher might obtain from the class a list of factors that contribute to a pleasing appearance. Emphasis should not be on the structures of the parts of the body concerned, but rather on how a person can make the most of his appearance through proper care and grooming. The study of posture should be restricted to the effect it has on the appearance and health of the body. In this unit the skin and teeth receive major emphasis. The eyes and ears are studied in some detail in Grade IX, Unit I. Further study of body structure is dealt with in Grade VII, Unit IV.</p>
<p>A. Effect of Posture</p> <ol style="list-style-type: none"> 1. On others 2. On appearance of clothes 3. On health <ol style="list-style-type: none"> a. muscles b. skeleton c. internal organs 	<p>The impression of alertness, intelligence and self-confidence created by good posture might be emphasized. Demonstrations by students of the effect of posture on the appearance of clothes would be useful.</p>

CONTENT	TEACHING SUGGESTIONS
<p>B. Causes of Poor Posture</p> <ol style="list-style-type: none"> 1. Fatigue 2. Rapid growth 3. General health 4. Carelessness 5. Disease 6. Lack of confidence 7. Compensation by students taller than the average 8. Ill-fitting clothing and shoes 9. Unsuitable desks and chairs 	<p>A posture survey may be made using the screening technique. A full-length mirror can be used to examine the posture of the students from front and side views. Defects such as the following should be noted: head forward, round shoulders, prominent abdomen, hollow in the lower back, one shoulder higher than the other, toeing out, ankles turned inward, fallen arches.</p>
<p>C. Corrective Exercises</p> <ol style="list-style-type: none"> 1. Book-on-head 2. Wall test 3. Sitting and rising correctly 4. Exercises for strengthening muscles 	<p>The exercises at the left, and others which the teacher and pupils may be able to devise, will aid in correcting posture defects. Value will be obtained only if such exercises are performed consistently.</p>
<p>II. SKIN, HAIR AND FINGERNAILS</p>	<p>Pupil research should result in the discovery of additional factors.</p>
<p>A. Factors Contributing to a Good Complexion</p> <ol style="list-style-type: none"> 1. Proper diet 2. Sleep 3. Cleanliness 4. Exercise in the fresh air 5. Sunshine 6. Regular elimination 7. Proper method of washing face 	
<p>B. Skin Problems</p> <ol style="list-style-type: none"> 1. Pimples 2. Acne 3. Blackheads 4. Boils 5. Moles and warts 	<p>Care must be taken to keep any discussion of skin blemishes impersonal.</p> <p>The importance of using individual toilet articles should be stressed.</p> <p>Communicable skin diseases such as scabies and impetigo are taken in Grade VIII, Unit III.</p>

CONTENT	TEACHING SUGGESTIONS
<p>C. Care of the Hair</p> <ol style="list-style-type: none"> 1. Washing the hair 2. Value of brushing 3. Arranging the hair 4. Problems of the hair <ol style="list-style-type: none"> a. dandruff b. excessive oiliness c. tonics and other preparations for the scalp <p>D. Care of the Nails</p> <ol style="list-style-type: none"> 1. Importance of cleanliness 2. Pushing back cuticle 3. Care for hangnails 4. Prevention of ingrown toenails 	<p>A panel discussion would be an effective method of dealing with this topic.</p>
<p>III. EYES, EARS, NOSE AND THROAT</p> <p>A. Signs of Eye Strain</p> <ol style="list-style-type: none"> 1. Squinting 2. Blinking 3. Watery eyes 4. Inflammation 5. Holding a book too close <p>B. Good Hearing</p> <ol style="list-style-type: none"> 1. Signs of strain 2. Means of combatting strain <p>C. Possible Effects of Diseased Tonsils and Adenoids on the Appearance, Breathing, Speech and Vitality.</p>	<p>The teacher should be alert to detect signs of eyestrain. Preventive care should be taken in the classroom through proper lighting, good posture while reading, and the avoidance of glare. The effect of eyestrain on the appearance and general health might be examined.</p> <p>Students might test each other's hearing by the whisper test and the watch test. The value and acceptability of hearing aids could be discussed.</p> <p>Treatment of this topic should be of a general nature. Students should understand the possible long-range effects of diseased tonsils and adenoids.</p>

CONTENT	TEACHING SUGGESTIONS
<p>IV. OTHER IMPORTANT CONSIDERATIONS</p> <p>A. Teeth</p> <ol style="list-style-type: none"> 1. Effect of discolored, decayed or uneven teeth on appearance. 2. Causes of tooth decay <ol style="list-style-type: none"> a. poor diet b. improper cleansing c. excessive use of acid-forming sweet foods <ol style="list-style-type: none"> i. carbonated drinks ii. chewing gum 3. Choosing a dentifrice <p>B. The Effects of Smoking</p> <ol style="list-style-type: none"> 1. Effect on appearance <ol style="list-style-type: none"> a. stained teeth b. fingers and finger-nails 2. Effect on the health <p>C. Underweight</p> <p>D. Vitality</p> <ol style="list-style-type: none"> 1. How vitality contributes to the appearance 	<p>Students might examine their teeth with a mirror in a good light. Defects to be noted might include discoloration, tartar, and malocclusion (teeth not meeting properly). The work of the orthodontist in correcting crooked or protruding teeth should be discussed.</p> <p>The proper method of brushing teeth and the importance of doing so immediately after eating should be understood. Rinsing the mouth with water to reduce acid concentration after eating sweets is also recommended.</p> <p>An objective might be the development of a critical attitude toward advertisements appearing in magazines. Some discussion of what dentifrices contain should prove useful.</p> <p>The stained teeth and finger nails, and the tobacco breath of the smoker present an added problem in grooming. The effect of smoking on the wind and, therefore, its relation to maintaining oneself in top physical condition might be considered. What about the cost of smoking? (See Resource Book.)</p> <p>Underweight may be more prevalent than overweight in Grade VII. The relationship of weight to health should be examined. In using weight tables it must be understood that the weights are average and that normal weights range above and below the weights given.</p>

CONTENT	TEACHING SUGGESTIONS
2. Factors affecting vitality a. adequate sleep b. good nutrition c. optimistic outlook d. confidence e. a happy environment	

ADDITIONAL SOURCES

S-ref: **Understanding Health**, Goldberger and Hallock, Pages 36-39, 48-63, 68-76, 188.

S-ref: **Enjoying Health**, Jones, Pages 23-26, 99-111, 117-124, 133-136, 144-150, 175-176.

S-ref: **Health and Safety for You**, Diehl and Laton, Pages 115-119, 168-183, 248-256, 342-344.

T-ref: **Health Observation of School Children**, Wheatley and Hallock, Chapters 2, 6, 7, 8, 9.

T-ref: **Health for You**, Crisp, Chapters 2, 4-10.

***Posture's Important When You're in the Teens**, Department of National Health and Welfare, Physical Fitness Division. (18 pages). Free from Community Recreation Branch, Department of Economic Affairs, Room 218, Alberta Block, Edmonton. Queen's Printer at Ottawa at 10¢ per copy.

DPH (1) **Crooked Teeth—Crooked Faces**, Department of National Health and Welfare, Dental Health Division. (10 pages).

*Dental Health Manual, Department of National Health and Welfare, Dental Health Division. (52 pages). Further copies, Queen's Printer, Ottawa.

DPH **Teenagers' Toothtest**, Department of National Health and Welfare. (Leaflet)

DPH (2) **Dental Health Guide for Teachers and Parents**, Canadian Dental Association. (Leaflet)

*GB (1) **FA Do You Know These Facts about Vision and School Achievement?** American Optometric Association. (Leaflet)

DPH **Help Yourself to Health**

DPH **For Smiles That Last**

DPH **Effective Methods for Prevention of Tooth Decay**

CONTENT	TEACHING SUGGESTIONS
<p>II. THE RENAISSANCE OF MEDICAL KNOWLEDGE</p> <p>A. Vesalius, the First Anatomist</p> <p>B. Leeuwenhoek, the Father of the Microscope</p> <p>C. Harvey, the Discoverer of Blood Circulation</p> <p>D. Malpighi, the Father of Microscopic Anatomy</p> <p>(See Resource Book.)</p>	<p>As an introduction bring out the features of medicine and sanitation during the Dark Ages, noting the belief in witchcraft and alchemy, improper sewage disposal, crude surgical and dental operations, reasons for the spread of plague and other communicable diseases.</p> <p>The class should understand how the printing press influenced the progress of medicine, and renaissance art the study of anatomy. The contributions of Vesalius, Leeuwenhoek and Harvey should be considered in the light of the learning of their day. How Malpighi's work completed that of Harvey should be understood.</p>
<p>III. CONQUERORS OF COMMUNICABLE DISEASE</p> <p>A. Jenner and Vaccination</p> <p>B. Pasteur and the Germ Theory of Disease</p> <p>C. Lister and Modern Surgery</p> <p>D. Koch and Bacteriology</p> <p>E. Ross and Malaria Control</p> <p>F. Reed and Yellow Fever Control</p> <p>(See Resource Book.)</p>	<p>This section provides the student with a basic understanding of the germ theory of disease. The related achievements of Pasteur, Lister and Koch should be explained. The class should report on the work of Jenner as a basis for its understanding of immunization.</p> <p>Explain how Ross discovered the cause of malaria, the most prevalent disease in the world. What are some of the difficulties in attempting to eliminate it? Point out that the building of the Panama Canal was only made possible through the work of Walter Reed and William Crawford Gorgas. See Prose and Poetry for Canadians (Grade VII) P. 357 "Lister"</p>
<p>IV. THE GREAT HUMANITARIANS</p> <p>A. Florence Nightingale, Founder of Modern Nursing</p> <p>B. Henri Dunant, the Founder of the Red Cross</p>	<p>The following topics should be considered for possible assignment: the influence of Florence Nightingale on nursing, the founding of the Red Cross movement, the history of sanitarium treatment for tuberculosis, the development of the mental hygiene movement.</p>

CONTENT	TEACHING SUGGESTIONS
<p>C. Edward Trudeau, the Founder of the First American Sanitarium for Tuberculosis</p> <p>D. Clifford Beers, the Founder of the Mental Hygiene Movement in America</p> <p>E. Sir William Osler, the Medical Teacher (See Resource Book.)</p>	<p>Osler's contribution may be studied in the light of his epitaph, "Here lies the man who admitted students to the wards". To him also is attributed the founding of medical social work. Special interest will obtain from the fact that Osler was a Canadian.</p>
<p>V. MEDICAL SCIENTISTS OF RECENT TIMES</p> <p>A. Roentgen, the Discoverer of the X-ray</p> <p>B. Marie and Pierre Curie, the Discoverers of Radium</p> <p>C. Ehrlich, the Discoverer of Salvarsan</p> <p>D. Banting and Best, the Discoverers of Insulin (See Resource Book.)</p> <p>E. Sir Alexander Fleming</p>	<p>The persons selected for study in this section were pioneers who opened up new fields of study in medicine. How Roentgen came to discover the X-ray is an interesting subject for report. The work of the Curies is suggested to give the students a basis for the later study of radioactive medicines and therapy. Ehrlich's work might serve as an illustration of the methods used in modern research which result in the discovery of new drugs to combat specific diseases. The work of Banting and his associate should introduce the student to the fact that diseases may be caused by the body failing to produce certain needed chemicals.</p> <p>In conclusion, the students should be told of the challenge posed by the many diseases yet to be conquered.</p>

ADDITIONAL SOURCES

- S-ref: **Understanding Health:** Goldberger and Hallock, Pages 304-305, 309.
- T-ref S-lib: **Building Health:** Williams, Grade IX primary reference, Pages 14-16.
- S-lib: **Prose and Poetry for Canadians—Journeys,** Grade VII literature text. Pages 343-373.
- T-ref S-lib: **Microbe Hunters:** de Kruif, Invitation to Read for Senior High Schools, Grade 12 level. Pages 3-24, 57-183, 278-390.
- T-ref S-lib: **Across the Ages:** Capen, Grade IX Social Studies reference. Pages 525-560, 584, 745.

DPH (1): **Grist for the Teacher's Mill**: Canadian Tuberculosis Association, (90 pages). Pages 7-25, 72-84.

*T-ref: **16 American Health Heroes**, Metropolitan Life Insurance Company, (75 pages). Pages 9-12, 37-40, 53-56.

DPH (1) T-ref: **Cancer—a Manual for High School Teachers**; New York City Cancer Committee, (80 pages). Pages 63-64.

Secondary School Guide to the Junior Red Cross, Provincial Junior Red Cross Headquarters, 1504 First Street East, Calgary. Pages 29-31.

*GB (1) FA: **The Story of Healing**, C-I-L Oval, April 1953. (24 pages). Chapters 1, 2, 4.

Heroes of Health, The Health League of Canada, 111 Avenue Road, Toronto. (15 pages). Pages 5, 6, 8-12. (5c per copy).

GRADE SEVEN — UNIT III — DISEASE PREVENTION

INTRODUCTORY STATEMENT

As an outcome of the work of this unit, the student should have acquired the understanding that many of the diseases of childhood can be prevented by good individual health practices and public health measures. He should understand that the common cold can cause much distress and result in loss of time and money. An examination of such diseases as rheumatic fever should encourage the student to realize the need for adequate health precautions.

PRIMARY REFERENCES

**For Healthful Living, Pages 179-182, 190-191, 198-208.
Teachers' Resource Book**

CONTENT	TEACHING SUGGESTIONS
<p>I. PREVENTION OF COLDS</p> <p>A. Causes</p> <ol style="list-style-type: none"> 1. Viruses <ol style="list-style-type: none"> a. nature of a virus b. how viruses differ from bacteria 2. Predisposing factors <ol style="list-style-type: none"> a. fatigue b. poor ventilation c. poor diet <p>B. Costliness of Colds</p> <ol style="list-style-type: none"> 1. Absenteeism 2. Possible after-effects <ol style="list-style-type: none"> a. ear and sinus infections b. other complications <p>C. Diet in the Prevention of Colds</p> <ol style="list-style-type: none"> 1. Place of food in building and maintaining resistance <ol style="list-style-type: none"> a. milk b. canned tomatoes and raw cabbage c. other vegetables 	<p>In Unit II students learned that diseases are caused by bacteria. This knowledge should be extended to include diseases caused by viruses.</p> <p>(See Resource Book.)</p> <p>Reports might be prepared on how these factors contribute to the catching of colds. The added care necessary in cold weather to avoid colds should be emphasized.</p> <p>An examination of Canada's Food Rules could be the starting point for a study of this subject.</p> <p>Canned tomatoes are mentioned because they are inexpensive sources of Vitamin C and are readily available in winter.</p>

CONTENT	TEACHING SUGGESTIONS
<p>II. DISEASES COMMON AMONG CHILDREN</p> <p>A. Diseases of the Lungs</p> <ol style="list-style-type: none"> 1. Tuberculosis 2. Pneumonia 3. Bronchitis <p>B. The Common Communicable Diseases of Childhood</p> <ol style="list-style-type: none"> 1. Measles 2. Mumps 3. Whooping Cough 4. Diphtheria 5. Scarlet Fever 6. Poliomyelitis <p>C. Rheumatic Fever</p> <ol style="list-style-type: none"> 1. Nature 2. Predisposing factors 3. Danger of heart damage 	<p>From Unit II the student will know that tuberculosis is caused by a specific germ. Though this germ may attack various organs, it generally affects the lungs because it is carried by the air. Pneumonia may be caused by a variety of bacteria or by viruses. Sufficient physiology should be taught so that the student understands the organs involved.</p> <p>Review the means one can take to protect himself from respiratory infection.</p> <p>With the help of the chart published by the Provincial Department of Health, the regulations for the various communicable diseases can be investigated. The fact should be brought out that these communicable diseases are spread in much the same way as colds. Information is available in the resource book on the number of cases and the number of deaths from certain of these diseases.</p> <p>Rheumatic fever is responsible for most of the organic heart disease in children. An analysis of what it is, its effects and treatment should prove of value.</p>
<p>III. IMMUNIZATION</p> <p>A. The Protection Offered by Vaccination and Inoculation</p> <ol style="list-style-type: none"> 1. Smallpox 2. Typhoid 3. Diphtheria 4. Poliomyelitis 	<p>The incidence of preventable communicable diseases indicates that there is still a need for education regarding immunization in Canada. Smallpox has become almost of historical interest and deaths from diphtheria are few in number. Progress in the fight against polio should be watched with interest. A report on the Salk vaccine would be pertinent.</p> <p>(See Resource Book.)</p>

CONTENT	TEACHING SUGGESTIONS
	<p>The students might make a chart showing the diseases for which one may be vaccinated or inoculated and the best age for the protection to be administered. Examination of immunization should concern itself with the protective aspect only. Detailed study of the theory of immunization will be dealt with in Grade X.</p>

ADDITIONAL SOURCES

- S-ref: **Understanding Health:** Goldberger and Hallock, Pages 158-160, 273-280, 282-284, 295-299, 426-429, 439-447.
- S-ref: **Health and Safety for You:** Diehl and Laton, Pages 208-209, 215-225, 242-243, 398-413, 416-426.
- S-ref: **Enjoying Health:** Jones, Pages 310-328.
- T-ref: **Health Observation of School Children:** Wheatley and Hallock, Pages 13-19, 196-217.
- S-lib: **Canada Yearbook,** Chapter 5.
- S-lib: **Health for You:** Crisp, Pages 227-306, 382-412.
- DPH: **Canada's Food Rules** (Leaflet).
- DPH: **Score Yourself** (T.B.)
- DPH: **What You Need to Know About T.B.,** Canadian Tuberculosis Association (15 pages).
- DPH: **Communicable Disease Regulations,** Department of Public Health (chart).
- DPH: **Chicken Pox, Scarlet Fever, Measles, Whooping Cough,** Department of Public Health (leaflets).
- DPH: **Grist for the Teacher's Mill,** Canadian Tuberculosis Association, Pages 38-52.
- Health Facts,** Health League of Canada, 111 Avenue Road, Toronto 5, Canada (20 pages). (10¢ per copy).

CONTENT	TEACHING SUGGESTIONS
<p>II. THE FRAMEWORK OF THE BODY</p> <p>A. The skeleton</p> <ol style="list-style-type: none"> 1. Function 2. Arrangement <p>B. The Bones</p> <ol style="list-style-type: none"> 1. Varying sizes and shapes 2. Composition 3. Changes in bone substance with growth <p>C. The Joints</p> <ol style="list-style-type: none"> 1. Structure <ol style="list-style-type: none"> a. ligaments b. synovial membrane 2. Kinds <p>D. The Foot</p> <ol style="list-style-type: none"> 1. Structure 2. Foot troubles 3. Requirements for properly-fitted shoes <ol style="list-style-type: none"> a. correct size b. proper last c. low heel d. support around the instep 	<p>A knowledge of the body's structure and its functions is desirable but emphasis should be on sound health practices.</p> <p>An examination of the skeleton will demonstrate how well nature has designed it for functions of protection of the organs, and support and movement of the body.</p> <p>With the help of a chart, analyze the general design of the human framework. For example, the thorax makes a bony cage, and the pelvis a bowl-like structure.</p> <p>A bone split lengthwise might be obtained from a butcher to demonstrate its internal structure. The importance of both mineral and organic matter in the composition of bone should be noted and these substances related to the foods one eats.</p> <p>Have the class find out how joints are held together and how friction is eliminated. Locate the various types of joints in the body and demonstrate the kinds of movement possible. Diseases which afflict the joints, such as arthritis, may be studied briefly.</p> <p>The structure of the feet should be examined to show how the body's weight is supported, shock absorbed, and power obtained for walking. Foot troubles such as fallen arches, bunions, and corns should be explained. The effects of high heels, moccasin-type shoes, and stockings with too-short heel should be considered. Students should be led to appreciate that proper care of the feet pays dividends in later life.</p>

CONTENT	TEACHING SUGGESTIONS
<p>III. THE MUSCLES</p> <p>A. Structure</p> <p>B. Functions</p> <ol style="list-style-type: none"> 1. Holding body erect 2. Moving the body <ol style="list-style-type: none"> a. opposing muscles b. coordination of muscles c. production of heat <p>C. Development and Maintenance of Muscles</p> <ol style="list-style-type: none"> 1. Benefits of exercise 2. Importance of rest 3. Need for a good diet 	<p>With the help of a chart show that muscles are designed in size and shape for the work they do, for example, leg muscles are heavy and eye muscles delicate. The work of muscles in holding the body erect should be noted. The action of opposing pairs of muscles and the necessary coordination of nerve impulses to provide for body movement should be explained.</p> <p>Coordination of muscles is developed through practice, for example, in learning to skate or playing the piano. Relate the development of coordination to the ease, grace, and economy of movement of a figure skater or baseball player.</p> <p>Discuss the causes of flabby muscles. Show how good posture is dependent on well-developed muscles. What is muscle tone? Discuss the importance of training for athletic events. Explain the scientific reasons for fatigue.</p>

ADDITIONAL SOURCES

S-ref: **Understanding Health:** Goldberger and Hallock, Pages 28-45.

S-ref: **Enjoying Health:** Jones, Pages 15-42.

S-ref: **Health and Safety for You:** Diehl and Laton, Pages 92-124.

T-ref: **Health Observation of School Children:** Wheatley and Hallock, Pages 393-419.

T-ref S-lib: **Health for You:** Crisp, Pages 12-31.

DPH: **Arthritis:** Metropolitan Life Insurance Company (8 pages).

DPH: **Canada's Food Rules** (leaflet).

***Foot Health and How to Buy Shoes:** Footwear Institute of Canada, 2081 Aylmer Street, Montreal, (12 pages each).

***Posture's Important When You're in the Teens:** Physical Fitness Division, Department of National Health and Welfare (18 pages).

CONTENT	TEACHING SUGGESTIONS
<p>II. FIRES</p> <ul style="list-style-type: none"> A. Common Causes B. Prevention C. Behavior in a Fire <ul style="list-style-type: none"> 1. when clothing is on fire 2. when escaping from a building D. Fire-fighting Equipment E. First Aid <ul style="list-style-type: none"> 1. Treatment of burns 2. Treatment of suffocation 3. Possibility of shock <p>III. POISONS</p> <ul style="list-style-type: none"> A. Causes <ul style="list-style-type: none"> 1. The medicine chest 2. Garden insecticides and fungicides B. Prevention <ul style="list-style-type: none"> 1. Labelling 2. Disposing of old medicine bottles 3. Location of <ul style="list-style-type: none"> a. medicine chest b. garden supplies C. First Aid <p>IV. CUTS AND WOUNDS</p> <ul style="list-style-type: none"> A. Common Causes B. Prevention C. First Aid 	<p>The class might make a survey of the common causes of fires. In their survey they could suggest methods of eliminating fires around the home. In urban areas the class might make a safety map of the neighborhood, showing fire alarms, water hydrants, and fire lanes.</p> <p>(See Resource Book.)</p> <p>A study of the principles of fire-fighting and the equipment that might be kept in the home should interest the students.</p> <p>Comment briefly on the need for artificial respiration. The method of applying it is discussed in Unit V, Grade VIII.</p> <p>Steps should be taken to impress upon students the need for examining medicine bottles and insecticides for poison warnings. The teacher should point out the dangers from overdoses of medicine.</p> <p>The class might plan an adequate medicine chest.</p> <p>The class should become familiar with the basic rules for administering first aid to victims of poisoning, for example, milk in quantity is a general antidote.</p>

CONTENT	TEACHING SUGGESTIONS
<p>V. ASPHYXIA</p> <p>A. Types</p> <ol style="list-style-type: none"> 1. Smothering 2. Choking 3. Strangulation 4. Submersion <p>B. Causes</p> <ol style="list-style-type: none"> 1. Lack of oxygen <ol style="list-style-type: none"> a. obstruction of air passages b. smoke c. carbon monoxide poisoning 2. Paralysis <ol style="list-style-type: none"> a. electric shock b. blow to such locations as the solar plexus <p>C. Preventive and Safety Measures</p>	<p>A general survey of the causes of asphyxia can be carried out, and preventive measures considered, for example, accidents due to suffocation in abandoned refrigerators are preventable. Students should know what precautions should be taken to prevent electric shock.</p>

ADDITIONAL SOURCES

- S-ref: **Understanding Health:** Goldberger and Hallock, Pages 366-383.
- S-ref: **Health and Safety for You:** Diehl and Laton, Pages 26-29.
- S-ref: **First Aid to the Injured:** St. John Ambulance Association, Chapters 4, 7, 9-13.
- T-ref: **Health Observation of School Children:** Wheatley and Hallock, Pages 176-181, 343-346, 424-429.
- S-lib: **Good Health for Better Living,** Grade VIII primary reference, Pages 243-251, 266-282.
- T-ref S-lib: **Health for You:** Crisp, Grade X reference, Chapters 28, 30.
- S-lib: **Canada Year Book,** Chapter 5.
- DPH: **Your Family's Safety.**
- DPH: **Don't Poison Your Family.**
- DPH: **First Aid Kit.**
- DPH: **Emergency First Aid,** Department of National Health and Welfare.
- DPH: **Water Safety Knowledge.**
- DPH: **Never, Never be a Dodo,** Canadian Imperial Bank of Commerce.
- Health Facts,** The Health League of Canada, 111 Avenue Road, Toronto 5, Ontario (19 pages), 10¢ a copy .
- SBB-so: **Your Safety Handbook:** Dearborn, Junior Life Adjustment Booklet (40 pages).

GRADE EIGHT — UNIT I — PATTERNS OF GROWTH

INTRODUCTORY STATEMENT

In Grade VIII emphasis is placed on factors that lead to individual differences in growth. **As an outcome of the work of this unit the student should have acquired the understanding that both physical changes and changes in emotions and attitudes accompany growth.** Study of this unit should encourage students to accept with equanimity the changes experienced in growth and development. Sympathy for the understanding of the difficulties that others may be experiencing in this respect during the adolescent period is another desirable outcome of this unit.

PRIMARY REFERENCE

Good Health for Better Living, Pages 14-15, 48-49, 57-58, 77, 81-82, 205-210.

CONTENT	TEACHING SUGGESTIONS
<p>I. FACTORS AFFECTING GROWTH</p> <p>A. How Individuals Differ</p> <p>1. Heredity sets the pattern</p> <p style="padding-left: 20px;">a. influence of heredity on growth</p> <p style="padding-left: 20px;">b. effect of body structure on weight</p> <p>2. Environment Influences Growth</p> <p style="padding-left: 20px;">a. emotional climate</p> <p style="padding-left: 20px;">b. housing</p> <p style="padding-left: 20px;">c. financial position</p> <p style="padding-left: 20px;">d. social relationships</p> <p style="padding-left: 20px;">e. influence of geography and weather</p>	<p>Each person is an individual differing in certain respects from every other person. We all follow a general pattern of growth and development, but deviations from the pattern are to be expected. Refer to Grade VII, Unit IV.</p> <p>The approach to this topic should be in general terms to discourage students from becoming too much concerned about peculiarities they think they may have. Emphasis should be upon the necessity of using our inheritance to best advantage.</p> <p>The effects of an inadequate environment on physical, mental, social and emotional development of the individual should be examined generally with the age level of the students in mind.</p> <p>An examination of how climate and soil conditions can affect health and growth would be useful. Factors such as the effect on health of Canada's long, cold winters would be brought out. The fact that most table salt in Canada must be iodized because of the iodine deficiency of soils should also be noted.</p> <p>Again, what about living conditions in India, Japan, China?</p>

CONTENT	TEACHING SUGGESTIONS
3. Growth patterns for boys and girls	Committees might compare age-weight charts for boys and girls. The graph will indicate the ages at which the heights and weights of boys and girls exceed each other.
4. Differences in rate of growth are to be expected	Students who develop earlier or later than the average will be reassured by examining charts showing that such variations in development are completely normal and that eventually all will attain physical maturity.
	The Nutrition Division of the Department of National Health and Welfare carried out a survey in 1953 to ascertain the average heights and weights for Canadian boys and girls and men and women. The results represent an average and not the ideal. This point should be kept in mind if the results of the survey are discussed in class.
II. GROWTH PROBLEMS OF ADOLESCENCE	Note Grade VII, Unit I. Material taken in this unit should not be over-emphasized.
A. What Are the Problems?	
1. Acne and other skin blemishes a. steps to be taken in minimizing effects	The mental health aspect should be kept in mind in considering the question of acne. The references list practical steps that can be taken in treatment. Medical advice may be needed, particularly in severe cases.
2. Awkwardness	Uneven rates of growth of different parts of the body during adolescence account for lack of co-ordination and endurance.
3. Lack of endurance	Dangers from over-exertion should be noted as increase in strength does not keep pace with growth in size. The need for more sleep during adolescence might well be emphasized.
4. Change in voice	A brief explanation of the changes in the larynx and vocal chords during adolescence would prove useful.

CONTENT	TEACHING SUGGESTIONS
5. Variations in weight	Student concern about variations in weight, and marked tendencies toward excess weight or underweight should be recognized. Again, students should accept that such variations are not unusual.
6. Nutritional demands	Students should appreciate the significance of an increased appetite during adolescence.
B. Attitudes Are Affected by Growth	A discussion on changes in attitudes, interests, and demands of the adolescent who is experiencing rapid growth should provide a satisfactory conclusion to the unit. Treatment, again, should be general.
1. Variation in interests	
2. Inter-personal relationships	

ADDITIONAL SOURCES

S-ref: **Understanding Health:** Goldberger and Hallock, Pages 25-26, 56, 95, 98, 151-152, 240.

S-ref: **Health and Safety for You:** Diehl and Laton, Pages 86, 114-115, 122-125, 150, 170.

S-ref: **Enjoying Health:** Jones, Pages 7, 18, 34, 75-76, 103-104, 107, 155-157, 280, 365, 385.

T-ref: **Health Observation of School Children:** Wheatley and Hallock, Pages 40-42, 79, 229-234, 322-324, 414-415.

T-ref: DPH (1) **Canadian Average Weights for Height, Age, and Sex.**

SBB-so: **How You Grow:** Neugarten, Junior Life Adjustment Booklet.

GRADE EIGHT — UNT II — MEDICAL MILESTONES

INTRODUCTORY STATEMENT

As an outcome of the work of this unit the student should have acquired the understanding that research has enabled man to conquer many diseases and has also pointed the way toward further conquests. He should be prepared to accept the benefits of these discoveries as used by skilled medical men and be prepared to recognize the possible dangers of self-medication.

PRIMARY REFERENCES

Good Health for Better Living, Pages 159-164, 185-188, 280-282.

Teachers' Resource Book.

CONTENT	TEACHING SUGGESTIONS
I. CONQUEST OF DISEASE BY THE DEVELOPMENT OF NEW DRUGS	
A. Sulpha Compounds (See Resource Book.)	In Grade VII, the students have had an introduction to the germ theory of disease. The work of Pasteur and Koch might be mentioned in preparation for this section. Assign for preparation a report on the steps that led to the discovery of the sulpha drugs. Information should be gathered on the diseases against which sulpha compounds are effective.
B. Antibiotics 1. Penicillin 2. Streptomycin 3. Aureomycin 4. Others (See Resource Book.)	The teacher should explain the dependence of organisms on their environment, relating this to the fact that millions of microbes are constantly destroying each other. The class might report on the discovery of penicillin, streptomycin and aureomycin.
C. Hormones 1. Insulin 2. Thyroxin 3. Cortisone and ACTH	A more detailed study of the endocrine glands is made in Grade IX, Unit I. The discovery of insulin by Banting and Best was taken in Grade VII but a review might be used to introduce this topic. The use of thyroxin in the treatment of simple goitre and the use of ACTH and cortisone in the relief of arthritis might be mentioned.

CONTENT	TEACHING SUGGESTIONS
<p>II. ELECTRONIC AND NUCLEAR DEVICES IN MODERN MEDICINE</p> <p>A. Electrocardiograph</p> <p>B. Electroencephalograph</p> <p>C. Electron Microscope</p> <p>D. X-ray</p> <p>E. Fluoroscope</p> <p>F. Radium, Cobalt, and Atomic Tracers (See Resource Book.)</p>	<p>In Grade VII the students have studied the work of Leeuwenhoek, Roentgen and the Curies. From their work and that of other physicists modern devices such as those listed have developed. Information and pictures on these and other devices used in modern medicine should be obtained.</p>
<p>III. DANGERS OF SELF-PRESCRIPTION</p> <p>A. Legal Restrictions on the Merchandising of Drugs</p> <p>✓ 1. Sulpha drugs and antibiotics</p> <p>2. Advertising cures for cancer, and tuberculosis</p> <p>✓ 3. Patent medicines</p> <p>4. Narcotics</p> <p>A. Possible Effects of Self-medication</p> <p>1. Headache remedies</p> <p>2. Laxatives</p> <p>3. Weight reducers</p> <p>4. Sulpha drugs and antibiotics</p> <p>5. Cough and cold remedies</p> <p>6. "Cures" for cancer</p> <p>7. Hair tonics and restorers</p>	<p>Students might find what restrictions are placed on the sale of drugs by a druggist. The teacher should explain why most drugs should be used only under the direction of a physician. Only antibiotics of low potency can be obtained without a prescription. The class might determine why advertising of medicines for cancer and tuberculosis is prohibited. What credence should be given to testimonials in advertising?</p> <p>The emphasis in this section should stress that many patent medicines are comparatively worthless and harmless. Their use may be dangerous because they can mask symptoms of a serious illness, causing a delay in accurate diagnosis and scientific treatment. What harm may be done by taking laxatives frequently? Discuss possible side reactions and cumulative effects of some medicines.</p>

CONTENT	TEACHING SUGGESTIONS
IV. MENTAL HEALTH A. Extent of the Problem B. Understanding Causes C. Prevention of Mental Illness	<p>In Grade VII, Unit II, the study of Clifford Beers introduced the subject of mental health. This section should concern itself with the extent of the problem in Canada. The key to modern treatment of mental diseases is in understanding the patient's history and background. The class might try to discover why authorities consider this so important. The treatment of the subject should be very simple at this level. Discussion might bring out the attitudes that lead to good mental health.</p>

ADDITIONAL SOURCES

- S-ref: **Understanding Health:** Goldberger and Hallock, Pages 214, 227, 233-237, 304-308, 422-423, 445, 447-448, 454.
- S-ref: **Enjoying Health:** Jones, Pages 298-303, 318-319, 337-340, 389, 391.
- S-ref: **Health and Safety for You:** Diehl and Laton, Pages 98, 144, 174, 181-182, 219, 222-224, 265-271, 274, 304, 311-328, 347-348, 370-374, 399, 420, 427, 443-455, 461-462.
- T-ref: **Health Observation of School Children:** Wheatley and Hallock, Pages 19, 131, 164, 196-197, 201, 203, 205, 209, 211, 263, 271, 276, 335, 378, 422.
- T-ref: **Health for You:** Crisp, a Grade X reference, Chapter 23, 24.
- DPH: **The Truth About Food and Drug Labels**
- DPH: **Safe to Take**
- DPH (1): **Grist for the Teacher's Mill:** Canadian Tuberculosis Association, (90 pages). Pages 80-84, 86-89.
- Heroes of Health,** The Health League of Canada, 111 Avenue Road, Toronto. (15 pages) 5¢ each. Pages 5, 12-14.
- ***The Story of Healing,** C-I-L Oval, 1953, (24 pages). Chapters 2, 3, 4, 5.
- DPH: **The Antibiotics**
- DPH: **Sulphanilamide and Related Sulphonamide Drugs**
- DPH: **Penicillin**

CONTENT	TEACHING SUGGESTIONS
<p>C. General Home Care of a Patient</p> <ol style="list-style-type: none"> 1. Sickroom <ol style="list-style-type: none"> a. isolation b. quiet c. ventilation d. cleanliness and order 2. Care of the bed 3. Personal care 4. Appetizing meals 5. Convalescence 	<p>Methods of caring for sick people in the home should be examined, keeping in mind the practical aspects of the problem.</p>
<p>D. Sickroom Procedure at Home to Avoid Spread of Communicable Disease</p> <ol style="list-style-type: none"> 1. The attendant should <ol style="list-style-type: none"> a. be in good health <ol style="list-style-type: none"> i. to lessen risk of secondary infection to patient b. keep up resistance by rest, exercise and proper food c. avoid possible contamination <ol style="list-style-type: none"> i. by washing hands before and after contact with patient ii. by putting on coverall before attending patient iii. by avoiding direct cough or sneeze of patient 	<p>Common sense should govern a person's actions when he comes into contact with people suffering from communicable diseases. He should take reasonable precautions to protect himself and others.</p>

CONTENT	TEACHING SUGGESTIONS
<p>2. Disinfection</p> <ol style="list-style-type: none"> burning used tissues keeping utensils and laundry of the patient separate and sterile final disinfection of room <ol style="list-style-type: none"> use of soap and water use of sunlight sterilizing objects by boiling 	<p>The features of a disinfection program as outlined are suggestions provided for guidance only. Students, however, should understand and appreciate the need for proper disinfection measures.</p>
<p>II. RESPONSIBILITY OF THE SCHOOL IN CURBING THE SPREAD OF INFECTION</p> <p>A. Observing Students for Signs of Infection</p> <ol style="list-style-type: none"> Chill Fever <ol style="list-style-type: none"> flushed face lassitude Sore throat Red or watery eyes Tight, dry cough Watery nasal discharge Sneezing Headache, earache, aching back or legs Nausea <p>B. Factors in School Situation which May Spread Disease</p> <ol style="list-style-type: none"> Airborne infection <ol style="list-style-type: none"> mouth breathing coughing and sneezing 	<p>Committees may make a study of absenteeism in the classroom or school, taking note of loss of time from various causes. Information from the study by the Canadian Education Association and the Canadian Public Health Association study of Absenteeism in Canadian Schools, 1946-47, is reported briefly in the resource book. More recent comprehensive studies are not available.</p> <p>Early symptoms of communicable diseases, studied in Grade VII, Unit III, might be reviewed. Students should know the general symptoms of infection and should take the responsibility of staying home when these are present. The teacher is responsible for observing the students and noting such symptoms for the protection of the class.</p> <p>A list of common ways of spreading disease in school should be compiled. A committee could survey the school for practices that might spread infection and consider how to eliminate them. Each student should consider his responsibility in helping to control the spread of communicable diseases in school.</p>

CONTENT	TEACHING SUGGESTIONS
<ul style="list-style-type: none"> c. close seating d. poor ventilation e. dusty classrooms <p>2. Infection by contact</p> <ul style="list-style-type: none"> a. skin diseases <ul style="list-style-type: none"> i. ringworm ii. scabies iii. impetigo b. provisions for drinking and eating <ul style="list-style-type: none"> i. drinking fountain ii. cleanliness of cups and dishes iii. storage of lunches c. provisions for washing hands <ul style="list-style-type: none"> i. towels 	<p>Common skin diseases and methods of identifying each should be studied. Bring out how these diseases are spread in school, and the importance of consulting a doctor and starting treatment at once.</p>
<p>3. Factors which lower resistance</p> <ul style="list-style-type: none"> a. wearing wet clothing b. wearing rubbers c. draughts d. lack of outdoor play and exercise 	
<p>C. School Health Services</p>	<p>A paragraph might be assigned on "Our School Health Services". The students should know the aims of school health services, how they are carried out, and the personnel involved.</p>
<ul style="list-style-type: none"> 1. Health education <ul style="list-style-type: none"> a. lessons b. literature c. films 2. Medical inspection by nurse 3. Medical examination by doctor 4. Immunization program 5. Health record 	

CONTENT	TEACHING SUGGESTIONS
6. School health service team a. teacher b. nurse c. doctor d. parents e. others	

ADDITIONAL SOURCES

S-ref: **Enjoying Health:** Jones, Pages 295-300, 316-317, 319-322, 328-329, 335-336, 346-357.

S-ref: **Understanding Health:** Goldberger and Hallock, Pages 229, 312-325.

S-ref: **Health and Safety for You:** Diehl and Laton, Pages 171-172, 376-380, 402-413, 416-429.

T-ref: **Health Observation of School Children:** Wheatley and Hallock, Pages 7-19, 219-223, 329-339.

T-ref: **Health for You:** Crisp, Pages 66, 450, 455.

DPH (1) T-ref: **What Teachers See,** Metropolitan Life Insurance Company (32 pages).

DPH: **Canada's Food Rules** (leaflet).

DPH: **Disinfection** (leaflet).

DPH: **Chicken Pox, Scarlet Fever, Measles, Whooping Cough** (leaflets).

DPH: **Safe Milk**

DPH: **Your Health Unit**

DPH: **Sick Child at Home**

DPH: **Communicable Disease Regulation Chart**

GRADE EIGHT — UNIT IV — NUTRITION AND BODY NEEDS

INTRODUCTORY STATEMENT

As an outcome of the work in this unit the student should have acquired the understanding that digestion is greatly aided by proper selection of foods and the development of good eating habits. He should have become aware of the share assumed by the various parts of the body in the process of digestion and the need for care in selecting and using foods. As a result the science of nutrition should be more adequately appreciated.

PRIMARY REFERENCE

Good Health for Better Living, Chapters 1-4.

CONTENT	TEACHING SUGGESTIONS
<p>I. PURPOSES OF FOOD</p> <p>A. How is Food Used ✓</p> <ol style="list-style-type: none"> 1. As material to build and repair tissues 2. As material from which to make enzymes and hormones 3. As a fuel 	<p>As a brief introduction to the topic, the teacher might discuss with the class such questions as:</p> <p style="padding-left: 40px;">Why do we feel weak when we are hungry?</p> <p style="padding-left: 40px;">Why do we have a good appetite after strenuous activity such as skating or swimming?</p>
<p>II. BASIC FOOD ELEMENTS</p> <p>A. Kinds of Foods ✓</p> <ol style="list-style-type: none"> 1. Carbohydrates 2. Fats 3. Proteins <p>B. Other Essential Elements</p> <ol style="list-style-type: none"> 1. Vitamins 2. Minerals 3. Water <p>C. Their Influence On:</p> <ol style="list-style-type: none"> 1. Growth 2. Posture 	<p>The class should examine briefly the essential food elements. Canada's Food Rules are planned to give adequate amounts of foods. Analyze each rule and determine the reason for it.</p> <p>Obtain a copy of the booklet, "Facts About Foods", from the Department of Health or a Public Health Nurse. Compare the value of different foods such as milk and soft drinks, bread and potatoes, liver and eggs.</p> <p>Students could be assigned topics from the list in C for study and written reports. A clear understanding should be obtained of the possible effects of proper food selection on these factors.</p>

CONTENT	TEACHING SUGGESTIONS
<p>3. Mental outlook</p> <p>4. Teeth</p> <p>5. General appearance</p> <p>6. Resistance to disease</p> <p>✓D. Dietary Deficiency Diseases</p> <p>1. Scurvy</p> <p>2. Pellagra</p> <p>3. Rickets</p> <p>4. Simple goitre</p>	<p>The class might read and report on the nature of scurvy, why it was common in the days of sailing ships, why it still occurs whenever there is a rush to stake land in Canada's Northland, and why many Canadians do not have enough Vitamin C in their diet. Why do poorly nourished people sometimes develop "sores" on the skin?</p> <p>Discuss the best safeguards against rickets.</p> <p>Vitamins are generally measured in international units. The class may be interested in looking up the number of units of Vitamin D a growing child should have every day.</p> <p>Explain that simple goitre is caused by a dietary deficiency in iodine.</p> <p>If information is available committees might report on the following men who have added to our knowledge of vitamins: Funk, Hopkins, Eijkman, Goldberger.</p>
<p>III. THE PROCESS OF DIGESTION</p> <p>A. Nature of Digestion</p>	<p>Since it is likely that the process of digestion is review for most students, a pretest of student knowledge would enable the teacher to choose the most suitable of the activities listed below. A knowledge of the process of digestion is desirable to encourage sound health practices in the use of food.</p> <p>As an introduction to this section the class might sketch the digestive tract in their notebooks, or examine the diagram on Page 69 of "Good Health for Better Living".</p>

CONTENT	TEACHING SUGGESTIONS
<p>B. Steps in Digestion</p> <p>1. In the mouth</p> <p>2. In the stomach</p> <p>3. In the small intestine</p>	<p>Consider the learning level of the class in assigning activities from this section. Time does not permit detailed treatment. Because of the time factor, the lecture methods may be considered most practical.</p> <p>The students might report on one of the following:</p> <ol style="list-style-type: none"> 1. The location of the salivary glands, marking in red the ones that become infected with mumps. 2. A taste bud, determining why food must be more or less liquid in order to be tasted. 3. The teeth, indicating the particular job each kind of tooth does. 4. The possibility of tooth decay resulting from over use of soft drinks and candy. <p>Discuss with the class such topics as:</p> <ol style="list-style-type: none"> 1. The capacity of the stomach 2. The production and use of rennet 3. The causes of "heartburn" ✓ 4. The common causes of stomach pains ✓ <p>Students should appreciate in a general way what takes place in the duodenum.</p> <p>Some knowledge of the location of the appendix and the nature of appendicitis is desirable.</p>
<p>✓ C. Factors Influencing Digestion</p> <p>1. Physical factors such as fatigue and posture</p>	<p>The class might study factors that influence peristalsis and the removal of wastes. These would include fatigue, worry, diet, and the amount of water consumed.</p>

CONTENT	TEACHING SUGGESTIONS
2. Emotional factors 3. Nutritive factors 4. Digestibility of food	<p>The teacher might discuss the harm done by the overuse of laxatives in preventing normal peristaltic movements and in removing important bacteria from the body.</p>
IV. METABOLISM	<p>Refer to Section I in which food is classed as fuel.</p>
A. What it Means	<p>Explain that metabolism is the burning in the body cells of fuel from food, and oxygen from the air. Note that the basal metabolism of a body is significant to a doctor in diagnosing many ailments.</p>
B. The Measurement of Energy	<p>The class should find out what it can about the unit used by scientists to measure the heat value of various foods. The students could list the calorie values of a few everyday foods and the factors that make a food high in calories.</p>
C. The Influence of Calories on Weight	<p>Check the work that has already been covered on weight and diet in Grade VII and VIII, Unit I.</p> <p>Determine with the class the approximate number of calories needed each day. Explain that the eating of more than this requirement may increase weight; the dangers of a self-prescribed diet and the inadequacies of the usual weight tables.</p>
V. SELECTION AND PREPARATION OF FOOD	<p>Have the class plan a day's menu according to <u>Canada's Food Rules</u>. The class might record the kinds of food eaten for two or three days and estimate whether or not they are getting sufficient foods from each of the five groups.</p>
A. Selecting Proper Food	<p>What are some meat substitutes and why are they good substitutes?</p> <p>Reasons should be developed why milk is important for adults, as well as for children.</p>

CONTENT	TEACHING SUGGESTIONS
B. Food Fads	<p>Canada's Food Rules are one criterion for choosing an adequate diet. They provide for a wide variety of foods, both cooked and raw. This list might be compared with some of the common diet fads: fallacious food combinations, "no breakfast", a diet of enriched foods and vitamins. Discuss the dangers associated with a diet cult in causing poor nutrition and neuroses about foods.</p>
C. Preparation of Food	<p>The class can examine how to retain food values in cooking and storing food.</p>
<p>✓ D. Diseases Spread By Food</p> <ol style="list-style-type: none"> 1. Botulism 2. Staphylococcus enteritis (toxin) 3. Salmonellosis 4. Streptococcal infections <ol style="list-style-type: none"> a. scarlet fever b. sore throat 5. Undulant fever 6. Typhoid fever 7. Hepatitis 8. Tuberculosis 9. Trichinosis 10. Tapeworm 11. Longworm 	<p>The teacher should discuss some of the unscientific notions that exist about food poisoning. Stress that spoiled food does not poison unless harmful bacteria are present. For this reason, there is no more danger of poisoning from foods left in open cans than from foods left in other containers. Consider why such foods as ready-cooked meats, cakes, and pies with cream fillings more commonly cause food poisoning than other foods.</p>

ADDITIONAL SOURCES

- S-ref: **Enjoying Health:** Jones, Pages 25, 39, 42-44, 73-89, 103-105, 137, 145-146, 385-386.
- S-ref: **Understanding Health:** Goldberger and Hallock, Pages 77-126.
- S-ref: **Health and Safety for You:** Diehl and Laton, Chapters 8, 9, 16 and Page 106.

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- T-ref: **Health Observation of School Children:** Wheatley and Hallock, Pages 62, 249-270, 289-302, 422-423.
- DPH (1): **Healthful Eating**, National Health and Welfare (48 pages).
- DPH: **Good Red Blood, Nutrition Division**, Department of National Health and Welfare (leaflet).
- DPH (1): **Guide to Better Nutrition Wall Chart**, H. J. Heinz Company.
- DPH (1) T-ref: **Facts About Foods**, H. J. Heinz Company.
- DPH: **How To Control Your Weight**, Metropolitan Life Insurance Company.
- DPH: **Hidden Calories That Tip the Scales**, Metropolitan Life Insurance Company.
- DPH: **The Noon Meal:** Department of National Health and Welfare.
- DPH: **For a Prettier, Peppier You!** Metropolitan Life Insurance Company.
- DPH: **Lunch Box Briefs:** Bakery Foods Foundation.
- DPH: **Diseases Communicated By Intestinal Discharges.**

GRADE EIGHT — UNIT V — SAFETY AT SCHOOL

INTRODUCTORY STATEMENT

In Grade VIII, safety in and around the school is considered. As an outcome of the work in this unit, the student should have acquired the understanding that such safety depends on the co-operative efforts of teachers, students, caretakers, bus drivers, and others. He should also be aware of and know how to take first-aid measures if the need should arise. Students should be able to make a critical survey of possible hazards and to work out solutions for overcoming them. Responsibility should be developed for the protection of younger children through such activities as organized highway patrols, monitoring in halls and washrooms, and assisting on the playgrounds. The work of the unit should help the student develop the attitude that safe practices depend to a large extent upon his willingness to assume a share of responsibility.

PRIMARY REFERENCES

Good Health for Better Living, Pages 151-153, 243-259, 282-295.

Manual on Civil Defence (contains information on fire drills and other emergency situations, including safety measures in bus transportation), available from the Department of Education.

CONTENT	TEACHING SUGGESTIONS
I. SCHOOL ACCIDENTS	
A. Their Causes and Prevention	
1. Physical condition	
a. value of medical examination	<p>The total environment of the students' own school should be the scope of this unit. A committee should be appointed to make a study of accidents that occur in the school and to determine the hazards that exist. One such study of school accidents showed that almost half the accidents occurred in unorganized activities. (See Resource Book.)</p> <p>Questions such as the following might be assigned for individual study: Why does a medical examination of each player help to make athletics safer? What part does physical condition play in preventing accidents that occur in sports?</p>
2. Importance of rules and proper techniques	How does knowledge of the rules of the game and of proper techniques help to prevent accidents?
3. Faulty equipment	
4. Accident proneness	Why are a few people more likely to have accidents than others?

CONTENT	TEACHING SUGGESTIONS
<p>B. Special Hazards in Various Rooms</p> <ol style="list-style-type: none"> 1. Gymnasiums 2. Washrooms 3. Locker rooms 4. Halls 5. Auditoriums 6. Laboratories 7. Swimming pools 	<p>The class should develop a check list of hazards in various rooms in the school. Proposed improvements could be discussed at the Students' Union or Students' Council.</p> <p>Codes of behavior for the gymnasium, and for the halls and stairways should be developed with emphasis on consideration for and responsibility toward others.</p>
<p>II. FIRE DRILL</p> <p>A. Organization of Class and School Procedures in Fire Drills</p> <ol style="list-style-type: none"> 1. Fire-drill procedure 2. Provision for safety of all people 3. Assignment of specific responsibilities 4. Analysis of fire-drill effectiveness 	<p>In Civil Defence a major consideration is the prevention of panic. Discuss with the class the importance of remaining calm in meeting emergencies as fires, accidents, and disasters. Resolution in overcoming little fears, consideration for others, respect for property, individual responsibility for the maintenance of morale should be discussed.</p>
<p>Manual on Civil Defence</p>	<p>Have the class develop drill programs which make use of alternate exits. Discuss ways of checking to see that all personnel are out of the building. Plan for the provision of safety points out-of-doors where children cannot be injured by falling walls, cannot interfere with firemen working, or cannot return to the building without being noticed.</p>
<p>B. Fire Hazards at School</p>	<p>A list of the causes of school fires can be compiled. Discuss how such fires are preventable. A manual on Civil Defence, covering fire drill and emergency situations, is available and is being distributed.</p>

CONTENT	TEACHING SUGGESTIONS
<p>III. ACCIDENTS THAT HAPPEN ON THE WAY TO AND FROM THE SCHOOL</p> <p>A. Hitch Hiking</p> <p>B. Jay Walking</p> <p>C. Careless Bicycle Riding</p> <p>D. Walking on the Wrong Side of the Highway</p> <p>E. Playing Games on the Street or Highway</p>	<p>If the school is located on any main traffic road or highway, a safety patrol will be needed. This should be planned with the principal. Information may be obtained from the nearest branch of the Alberta Motor Association.</p> <p>The class should discuss possible dangers of jay walking, hitch hiking, and walking on the highway. It is important to point out the responsibilities placed on others by people who do such things.</p> <p>The local bicycle-riding by-laws should be studied and a code of ethics for the bicycle-rider developed.</p>
<p>IV. FIRST AID FACILITIES IN YOUR SCHOOL</p> <p>A. First Aid Kit</p> <p>1. What it should contain</p>	<p>General principles of first aid should be closely correlated with safety education. Some time should be devoted to demonstration and practice of simple first-aid procedures. A review of procedures to be used with sprains, dislocations, and fractures is desirable.</p> <p>Discuss ways and means of taking care of people requiring first-aid measures.</p>
<p>V. DROWNING</p> <p>A. Prevention</p> <p>B. Artificial Respiration</p> <p>Points to Remember in Artificial Respiration, prepared by St. John Ambulance.</p>	<p>The importance of learning how to swim should be emphasized. A Water Safety Manual is available from the Canadian Red Cross Society. From this and other sources the class could develop a set of water safety measures, both for swimming and boating, should take into account the experiences the members of the class may have had or are likely to face in the future.</p> <p>Provision should be made for demonstrating artificial respiration. If time permits the class might practice it.</p>

ADDITIONAL SOURCES

S-ref: **Health and Safety for You:** Diehl and Laton, Pages 32, 33-36, 44-70.

S-ref: **Understanding Health:** Goldberger and Hallock, Pages 235-237, 344-364, 374-381, 384-385, 387-390.

S-ref: **Enjoying Health:** Jones.

S-ref: **First Aid to the Injured,** St. John Ambulance Association.

*GB T-Ref: **Manual of Civil Defence,** Department of Education.

T-ref: **Health Observation of School Children:** Wheatley and Hallock, Pages 223-227.

T-ref: **Health for You: Crisp,** Chapters 28, 29, 31.

Canadian Red Cross Society, Calgary and Edmonton:

Water Safety Manual (114 pages) 50¢.

Read This (a water safety pamphlet).

Help Prevent Drownings (a card with directions for a safety buoy), a mimeograph quiz, and posters are also available upon request.

Save A Life.

GB: **Points to Remember in Artificial Respiration,** St. John Ambulance (leaflet).

SBB-so: **Your Safety Handbook: Dearborn,** Junior Life Adjustment Booklet.

*GB FA: **Fire Prevention Education,** Queen's Printer, Ottawa. (140 pages).

Films and film strips on safety are available from the Department of Public Health.

DPH: **Emergency First Aid.**

DPH: **Emergency First Aid Kit.**

GRADE NINE — UNIT I — HEALTH RESPONSIBILITIES OF THE ADOLESCENT

INTRODUCTORY STATEMENT

As an outcome of the work of this unit the student should have acquired the understanding that good living habits contribute to sound health and increased efficiency both on the job and at play. Particularly, it should encourage him to appreciate the value of adequate care of the senses of sight and hearing, the importance of one's appearance, the functions of the glands, and the value of proper nutritional knowledge. The emphasis should be on the development of a sense of personal responsibility in the maintenance of health.

REFERENCE

Building Health, Chapters 5, 6, 7, 8, 9

CONTENT	TEACHING SUGGESTIONS
I. ASSUMING RESPONSIBILITY FOR ONE'S OWN HEALTH	<p>This unit deals generally with the student's responsibility in the matter of communicable diseases, nutrition, health rules, and care of his own personal appearance. These topics have received consideration in Grades VII and VIII. It is expected that the endocrine glands and the senses of sight and hearing will receive more detailed attention.</p>
A. Observing Health Rules	<p>A committee might draw up a list of health rules for teen-agers. Pupils could then score themselves on their observance of these rules.</p> <p>A tabulation of the number of hours of school time lost by the class the previous month might emphasize the importance of observing health rules. An essay on the topic, "Others Are Inconvenienced When I Am Ill" could prove a valuable exercise or evaluation device.</p>
B. Nutrition 1. Causes of overweight	<p>Note that Grade VIII, Unit IV contained a detailed study of nutrition. Brief comment only is required here. Emphasis should be on the fact that overweight usually results from over-eating.</p> <p>Students should again be cautioned that dieting should be carried out only under medical supervision.</p>

CONTENT	TEACHING SUGGESTIONS
2. Causes of underweight <ul style="list-style-type: none"> a. a person's disposition b. lack of sleep c. low-calorie diets d. other causes 	
II. HELPING ONE'S GLANDS TO WORK NORMALLY	<p>The influence of hormones on growth should be understood by the students. If only the normal functioning of these glands is emphasized, it will be within the understanding of the group. A chart showing their location in the body would be of value.</p>
A. The Glands of the Body <ul style="list-style-type: none"> 1. Thymus 2. Thyroid 3. Parathyroids 4. Adrenals 5. Pituitary 6. Pineal 7. Gonads 	
B. Influence of These Glands on Growth	<p>Exercises may be found on P. 97 of "Building Health."</p>
C. Maintaining Normal Glandular Balance	
III. MAKING THE BEST USE OF ONE'S SENSES	
A. Structure and Function of the Eye <ul style="list-style-type: none"> 1. Common defects <ul style="list-style-type: none"> a. short-sightedness (myopia) b. long-sightedness (hyperopia) c. astigmatism 2. Corrective lenses 	<p>Construction of the eye and the functions of its various parts should be understood generally.</p> <p>The use of sun glasses is worthy of examination.</p>

CONTENT	TEACHING SUGGESTIONS
<p>3. Care and adjustment of glasses</p> <p>4. Eye services</p> <ol style="list-style-type: none"> oculist ophthalmologist optometrist optician <p>5. Adequate lighting</p>	<p>Students who wear glasses might report on their proper care.</p> <p>The need for a check-up of the eyes at regular intervals to keep pace with vision changes should be emphasized. An eye chart can be obtained from the Canadian National Institute for the Blind at Edmonton or Calgary.</p> <p>Confusion sometimes arises as to the differences in function of those persons concerned with care of the eyes. This should be clarified.</p> <p>The classroom might be checked for adequate lighting, using a light meter if one is available. The principles upon which good lighting is based can be examined.</p>
<p>B. Structure and Function of the Ear</p> <ol style="list-style-type: none"> Ways by which a person may be helped to hear, such as: <ol style="list-style-type: none"> aural hygiene <ol style="list-style-type: none"> removal of wax clear articulation by others hearing aids Ways of preventing hearing loss, such as: <ol style="list-style-type: none"> avoiding common colds avoiding very loud noises 	<p>The hearing process should be explained. Refer to Grade VII, Unit I for the extent of previous study of the ear.</p>
<p>IV. MAKING THE MOST OF ONE'S APPEARANCE</p> <p>A. The Importance of Good Grooming</p> <ol style="list-style-type: none"> Use of cosmetics 	<p>Refer to Grade VII, Unit I.</p>

CONTENT	TEACHING SUGGESTIONS
<p>2. Care of clothing and shoes</p> <p>a. types of clothing suitable for school parties, sports, street wear, and the seasons</p> <p>b. budget considerations</p> <p>B. Personal Hygiene</p> <p>1. Care of the skin, hair, nails</p> <p>2. Bathing</p> <p>C. Good Carriage</p>	<p>Pictures of clothing suitable for teen-agers could be cut from magazines or other sources, and mounted. If this is discussed in Home Economics correlation should be provided for and duplication avoided.</p> <p>An essay on "The Effect of Good Posture on Appearance" might bring out pertinent points.</p>

ADDITIONAL SOURCES

- S-ref: **Health and Safety for You:** Diehl and Laton, Pages 115-119, 146, 167-168, 176-184, 333-353, 368-375, 435.
- S-ref: **Enjoying Health:** Jones, Chapters 4-7, 9-10, 13, Page 329.
- S-ref: **Understanding Health:** Goldberger and Hallock, Pages 53-54, 58-63, 95, 162-190, 212-221.
- T-Ref: **Health Observation of School Children:** Wheatley and Hallock, Pages 35, 92-99, 349-393.
- DPH-T-ref: **Understanding Your Teen-Ager.** Metropolitan Life Insurance Company (20 pages).
- DPH: **Ear Trouble** (leaflet), Blindness Control Division, Department of National Health and Welfare.
- DPH: **You're A Young Lady Now** (12 pages) and **Very Personally Yours** (19 pages), Canadian Cellucotton Products Company Limited.
- DPH: **Personal Hygiene** (Menstrual Education). Educational Portfolio.

GRADE NINE — UNIT II — THE CHANGING HEALTH PICTURE

INTRODUCTORY STATEMENT

As an outcome of the work of this unit the student should have acquired the understandings that our national health is influenced by cultural changes such as the growth of industrialization and that increased longevity is largely due to progress in medical science. He should become informed of the part that Canadian citizens play in promoting health and welfare.

PRIMARY REFERENCES

Building Health, Chapter 1

Teachers' Resource Book

CONTENT	TEACHING SUGGESTIONS
<p>I. POPULATION CHANGES</p> <p>A. Immigration</p> <p>B. Increasing Birth Rate</p>	<p>This unit lends itself to student research. Some statistical material will be found in the resource book.</p> <p>The students may be led to appreciate the value of statistics in health if the implications of the statistics are brought out in class discussion.</p> <p>A graph might be made of immigration to Canada since 1900. Explanations should be given for sudden increases in declines. Explain why immigration leads to a younger population.</p> <p>The 1956 report indicated that Canada has the highest birth rate of the so-called "developed" countries. A graph might be conducted to show the birth rates in Canada each year for the past 25 years. Our birth rate might be compared with that of other countries such as England, France, and Sweden. Note the decline of infant and maternal mortality rates.</p>

CONTENT	TEACHING SUGGESTIONS
C. Increased Longevity	<p>Compare the average span of life in 1920 with that of today. What is the trend in the death rate of Canada over the past 25 years? The birth rate may be compared with the death rate to obtain the natural increase. What is the trend in the natural increase?</p>
<p>II. FACTORS AFFECTING THE GENERAL HEALTH PICTURE</p> <p>A. Leading Causes of Death</p> <ol style="list-style-type: none"> 1. Decreasing deaths from communicable diseases <ol style="list-style-type: none"> a. immunization <ol style="list-style-type: none"> i. diphtheria ii. whooping cough iii. scarlet fever b. antibiotics 2. Increasing deaths from degenerative diseases <ol style="list-style-type: none"> a. heart disease b. cancer 3. Increasing tensions in modern society <ol style="list-style-type: none"> a. mental illness b. alcoholism 4. Increasing accident rate <ol style="list-style-type: none"> a. motor accidents b. other accidents <p>B. Better Health Services</p> <ol style="list-style-type: none"> 1. Wider dissemination of health knowledge 2. Progress in medicine <ol style="list-style-type: none"> a. increased medical knowledge b. availability of service c. greater demand for services 	<p>Examine the reasons for the decrease of communicable diseases. Compare the decline in the number of deaths from whooping cough, diphtheria, or scarlet fever to the increasing number of deaths from heart disease and cancer. Note that accidents are the leading cause of death in the age group from 10 to 19 years.</p>

CONTENT	TEACHING SUGGESTIONS
3. Government grants	<p>The provincial Department of Health, aided by federal funds, makes grants to local services. How do grants tend to influence health services?</p>
4. Increasing hospitalization <ul style="list-style-type: none"> a. services in Alberta <ul style="list-style-type: none"> i. maternity ii. tuberculosis iii. poliomyelitis iv. cerebral palsy 	<p>Consider the possible relationship between hospitalization for maternity cases in Canada and the decline in infant mortality. The class should examine the services offered by the Government of Alberta in the way of diagnostic clinics, hospitalization, treatment and rehabilitation for those suffering from cancer, polio, tuberculosis, cerebral palsy and rheumatoid arthritis.</p>
5. Voluntary health services	<p>Consider the place of volunteer agencies such as the Canadian Arthritis and Rheumatism Society in research and treatment, and in drawing public attention to disease.</p>
C. Increased Urbanization	<p>Compare the rural and urban populations of Canada from 1900 to 1960.</p>
D. Changing Standard of Living <ul style="list-style-type: none"> 1. Transportation <ul style="list-style-type: none"> a. roads b. streets and sidewalks 2. Utilities <ul style="list-style-type: none"> a. rural electrification b. water and sewers c. gas d. telephones 3. Housing problem 4. Nutrition problem 5. Recreation 	<p>The teacher could supervise a panel on changes in the standard of living in Alberta during the last 25 years. Relate these factors to our changing health picture. Discuss the means a small town can use to finance such services as water and sewers.</p>

ADDITIONAL SOURCES

- S-ref: **Enjoying Health: Jones**, Chapter 18, 22, 23.
- S-ref: **Understanding Health: Goldberger and Hallock**, Pages 390-394, 414, 426-455.
- S-ref: **Health and Safety for You: Diehl and Laton**, Pages 12-16, 18-21, 33, 36, 360, 466-475.
- T-ref: **Health Observation of School Children: Wheatley and Hallock**, Pages 13-20.
- SBB-so: **How Long Do You Want to Live?**, Science Research Associates Modern World of Science Series (48 pages).
- DPH: **Alberta's Health Services Program**, Department of Public Health (40 pages).
- DPH: **Your Health Unit**, Department of Public Health (8 pages).

GRADE NINE — UNIT III — PERSONAL AND COMMUNITY HEALTH

INTRODUCTORY STATEMENT

As an outcome of the work of this unit the student should have acquired an understanding of how the body protects itself and how an individual can assist the body's defences by the use of simple, scientific health practices. He should realize that good health depends not only upon his own health habits, but also upon community co-operation in the development of good public health practices. He should be aware of the services provided by the government for the protection of the health of the individual and the community, and should be concerned with doing his part to prevent the spread of disease.

REFERENCE

Building Health, Chapter 9.

CONTENT	TEACHING SUGGESTIONS
I. THE BODY PROTECTS ITSELF AGAINST DISEASE	
A. Agents of Protection	
1. The skin	<p>The class might list ways in which the protective armor of the skin can be broken, e.g., cuts and abrasions, insect bites, poor nutrition especially from a diet high in sugar.</p>
2. The nose	<p>A student might draw on the black-board a diagram of the nose showing the connecting sinuses. It should be noted that air must pass over a great area of warm, moist membrane. The value of cilia and mucus should be considered.</p>
3. Tear ducts, their function and location	<p>The reason why it is not normally necessary to wash the eyes or use drops in them should be explained.</p>
4. White blood cells	<p>Pupils should know something of the work of the white corpuscles, and the purposes of a blood count.</p>

CONTENT	TEACHING SUGGESTIONS
<p>5. Antibodies</p> <ol style="list-style-type: none"> What they are. How they develop in the blood. What the differences are between a toxoid and a vaccine. How antitoxin is obtained. How immunization is developed in the body. <p>6. The development of a fever and conditions conducive to such development.</p>	<p>An examination of the results of immunization over the years will bring out the fact that many of the formerly well-known communicable diseases are now rarely encountered. It should also bring out the effectiveness of present-day immunization methods by reference to "booster shots" of diphtheria toxoid.</p> <p>Consider that an increase in normal temperature inhibits the reproduction of invading germs.</p>
<p>II. FACTORS INFLUENCING THE RESISTANCE OF THE BODY TO DISEASE</p> <ol style="list-style-type: none"> Good circulation Diet Relationship of weight Fatigue Worry Emotional upsets Loss of blood Infections Changes of temperature 	<p>"A nation's fitness is measured in the fitness of its people." Obtain student reaction to this statement.</p> <p>The particular roles of vitamins A and C in developing body resistance to disease should prove of practical value to students.</p> <p>To illustrate the effects of changing temperatures the problem of ventilation of the classroom would make an interesting study.</p>
<p>III. THE COMMUNITY PROTECTS ITSELF AGAINST DISEASE</p> <p>A. Public Health Personnel in the Community</p>	<p>Examination of the duties of health personnel such as sanitary inspector, public health nurse, medical health</p>

CONTENT	TEACHING SUGGESTIONS
<p>B. Sanitation in Restaurants</p> <ol style="list-style-type: none"> 1. Public health regulations; how they are enforced. <p>C. Protection of the Community Water Supply</p> <ol style="list-style-type: none"> 1. An underground water supply 2. Filtration 3. Chlorination <p>D. Protection of the Milk Supply</p> <p>E. Garbage and Sewage Disposal</p> <ol style="list-style-type: none"> 1. Urban methods 2. Home precautions <p>F. Swimming Pool Sanitation</p> <p>G. Rats, Flies, Ticks</p>	<p>officer, and sanitary engineer should result in proper appreciation of what public health services are.</p> <p>Students should know what services are provided by the Provincial Health Department to assist in preventing the spread of communicable diseases. This study should be very general.</p> <p>Typhoid, paratyphoid, and dysentery may be water-borne diseases; however, because of treatment of water supplies, they are usually carried in infected food.</p> <p>Pupils should understand that tuberculosis, typhoid, septic sore throat, scarlet fever, diphtheria and undulant fever may be spread by impure milk. See Grade VII, Unit III for previous study of some of these diseases. Reports on the milk sold in the community could be prepared. How are the regulations for the testing of cattle for T.B. carried out?</p> <p>The responsibilities of municipal authorities and of individual families for the disposal of garbage can be examined.</p> <p>Regulations for the building and operation of swimming pools may be obtained from the Division of Sanitary Engineering, Department of Health.</p> <p>The dangers from such vermin, as well as their control, should be stressed.</p>

ADDITIONAL SOURCES

- S-ref: **Understanding Health:** Goldberger and Hallock, Pages 114-126, 148-149, 167-168, 244-252, 255-261, 288-293, 295-302.
- S-ref: **Enjoying Health:** Jones, Pages 50-51, 132-133, 310-333, 360-379.
- S-ref: **Health and Safety for You:** Diehl and Laton, Pages 166, 189-190, 215-216, 391-395, 398-413, 431-435, 472-473.
- T-ref: **Health Observation of School Children:** Wheatley and Hallock, Pages 167-168, 182-187, 195-196, 329.
- S-lib: **Good Health For Better Living:** Jones, Morgan, Landis, Pages 129-151.
- DPH: **Domestic Sewage Disposal**, (16 pages); **Safe Milk**, (leaflet); **Rural Waters**, (14 pages); Department of National Health and Welfare.
- DPH: **Diseases Communicated by Intestinal Discharges; Raw Milk, Undulant Fever; Protection of the Community's Food Supply** (8 pages); **Protecting the Community Milk Supply** (8 pages); **Disposal of Community Wastes** (leaflet); **Clean Eating Places:** Department of Public Health, Edmonton.
- DPH: **The Spotted Fever Tick in Alberta; Tick Borne Diseases of Man and Methods of Prevention; The Rat, An Expensive and Dangerous Pest** (leaflets); **Control of Houseflies and Mosquitos** (6 pages); Division of Entomology and Vector Control Department of Public Health.

GRADE NINE — UNIT IV — THE TRANSPORTATION SYSTEM OF THE BODY

INTRODUCTORY STATEMENT

As an outcome of the work of this unit the student should have acquired the understanding that man by adequate knowledge of the heart and its functions can do much to maintain its efficient operation. He should further understand the peculiar relationship between the lungs and the heart in providing for an adequate supply of oxygen to assist in removing waste materials from the blood.

REFERENCE:

Building Health, Chapters 2, 3, 4.

CONTENT	TEACHING SUGGESTIONS
<p>I. THE HISTORY OF MAN'S THINKING ABOUT THE HEART AND BLOOD</p> <p>A. Early ideas</p> <p>B. Galen: His Theory of Blood Circulation</p> <p>C. Harvey</p>	<p>Section I should be introductory in nature. The teacher might review briefly ideas held by the ancients that the heart brewed vital spirits as illustrated by our use of the terms "heart-ache" and "hard-hearted".</p> <p>The class could consider the implications of Harvey's work. How did his discovery affect the treatment of hemorrhages, and the understanding of the need for oxygen?</p> <p>Consider such expressions as "blood will tell" and "blood is thicker than water".</p> <p style="text-align: center;">See also Unit II, Grade VII.</p>
<p>II. THE HEART</p> <p>A. Its Structure</p> <p>B. Its Function</p> <p>C. The Pulse</p> <ol style="list-style-type: none"> 1. What it means 2. How it varies <p>D. How the Heart Rests</p>	<p>A demonstration will show the effect of a short period of strenuous exercise on pulse rate.</p> <p>Consider how the heart rests itself. If the heart beat drops ten beats a minute during sleep, how many beats are saved in eight to ten hours of sleep?</p> <p>Why does one become short of breath with strenuous exercise and how does training or conditioning help to overcome this?</p>

CONTENT	TEACHING SUGGESTIONS
E. Damage to the Heart	<p>The causes leading to increase in heart disease should be examined. Consider the possible effects of rheumatic fever, septic sore throat, scarlet fever, and other infections on the heart.</p>
F. Care of the Heart	
III. THE BLOOD	<p>Students should be aware of the work of the red and white corpuscles; the protective substances the blood is carrying, keeping in mind the communicable diseases and inoculations a person has had, and the nature of gamma globulin.</p>
A. Composition <ol style="list-style-type: none"> 1. Cell components 2. Blood-making foods 3. Oxygen 4. Gland secretions 5. Protective substances 	
B. Diseases of the Blood <ol style="list-style-type: none"> 1. Anemia 2. Pernicious anemia 3. How to combat them 	
C. How the Blood Circulates <ol style="list-style-type: none"> 1. Arteries 2. Veins 3. Capillaries 4. The nature and treatment of shock 5. Hemorrhages 6. Blood transfusions 	<p>Trace the circulation of the blood on a diagram and have the main trunk lines named. In the treatment of the content sub-headings sufficient detail should be brought out to ensure an understanding of their inter-relationship.</p> <p>The students will be interested in the nature and purposes of the Canadian Red Cross Blood Transfusion Service.</p>
IV. HOW THE BODY	
USES OXYGEN	<p>The life of every cell is dependent upon oxygen. Its relationship to the metabolism of food within the cells should be understood.</p>
A. The Meaning of Metabolism	
B. How Oxygen is Prepared in the Nose	
	<p>Drawings and charts will assist students to appreciate the enormous surface that the lungs supply for transferring oxygen to the blood.</p>

CONTENT	TEACHING SUGGESTIONS
<p>C. The Function of the Lungs</p> <p>D. Control of Respiration</p>	<p>Since in strenuous exercise wastes collect in the tissues because oxygen cannot be delivered fast enough to burn the fuel completely, some value might be gained from an examination of such questions as:</p> <p>Why does a sprinter breathe very fast, for some time after he has completed his run?</p> <p>Why are rest periods essential in games such as basketball or hockey?</p> <p>Why do muscles ache after unaccustomed exercise?</p> <p>Why does fatigue make one slump and assume very poor posture?</p> <p>Why is a warm-up period important before any vigorous activity?</p>

ADDITIONAL SOURCES

- S-ref: **Health and Safety for You:** Diehl and Laton, Chapters 11, 12, 14.
- S-ref: **Enjoying Health:** Jones, Chapter 3.
- S-ref: **Understanding Health:** Goldberger and Hallock, Pages 109-110, 127-146, 148-155.
- T-ref: **Health Observation of School Children:** Wheatley and Hallock, Pages 154-171, 176-181, 191-196.
- S-lib: **For Healthful Living:** Jones, Morgan, Landis, Pages 161-197.
- DPH: (1): **Your Heart**, Metropolitan Life Insurance Company (17 pages).
- DPH: **Good Red Blood**, Department of National Health and Welfare (leaflet).
- DPH: **What You Need To Know About Heart, Blood, and Lymph.**
- DPH: **Wall Chart on the Heart.**
- DPH: **Wall Chart on the Circulation System.**
- DPH: **Rheumatic Fever.**
- The Story of Blood**, Canadian Red Cross Society, Calgary and Edmonton, (16 pages).

GRADE NINE — UNIT V — SAFETY ON THE ROAD

INTRODUCTORY STATEMENT

Highway safety is a matter of increasing concern to everyone. As an outcome of the work of this unit, the student should have acquired the understanding that traffic problems can be attacked in a scientific way by analyzing the causes of highway accidents and by taking steps to remove the causes where possible. The aim of the unit should be to encourage the development and application of safety awareness to everyday living. The students should also have acquired the understanding that the waste resulting from accidents can be lessened by the application of knowledge and common sense.

REFERENCES

Building Health, Pages 208-214, 222-225.

Teachers' Resource Book.

CONTENT	TEACHING SUGGESTIONS
I. HIGHWAY SAFETY FOR PEDESTRIANS A. Dangers Created by and to Pedestrians 1. Jaywalking 2. Hitch-hiking 3. Walking on the highway B. Prevention Methods 1. School safety patrols 2. Cross walks 3. Rules for pedestrian traffic on highways 4. Special conditions a. time hazards b. lack of control due to arm bundles, slippery streets, and other factors	<p>The class could develop a set of rules for pedestrians on the highway. Though some value could be gained from an analysis of the current situation with respect to highway accidents it should not be overstressed.</p> <p>Emphasize the need for pedestrian courtesy and consideration for the rights of others.</p> <p>It should be pointed out that varying highway conditions give to the driver of a vehicle added responsibilities.</p>
II. DANGERS CREATED BY CYCLISTS, AND DANGERS TO CYCLISTS A. Increased Traffic on Highways B. Nature of Hazards: What They Are	<p>Review the list of traffic rules for cyclists. Using the experiences of the class, develop a list of hazards and how to avoid them.</p>

CONTENT	TEACHING SUGGESTIONS
<p>III. ONE'S RESPONSIBILITY IN BECOMING A SAFE DRIVER</p> <ul style="list-style-type: none"> A. Rules of the Road B. Safe Car Operation C. Responsibility to Others D. Road Hazards E. Good Manners in Driving 	<p>The Alberta Motor Association sponsors safe-driver training. Other organizations in the community might aid in driver training.</p>
<p>IV. COMMON CAUSES OF HIGHWAY ACCIDENTS</p> <ul style="list-style-type: none"> A. Breaking Regulations B. Excessive Speed C. Poor Roads D. Climatic Conditions E. Mechanical Failure F. Fatigue G. Emotional Stress H. Poor Judgment I. Headlight Glare J. Faulty Tires K. Farm Machinery 	<p>Consider the possibilities in the following projects or activities:</p> <ol style="list-style-type: none"> 1. Provision of a set of posters showing the causes of highway accidents. 2. An essay on how to make driving safer in Alberta. 3. A panel discussion on the high rate of motor accidents among youthful drivers. 4. Discussion around such terms as: "road-hog", "over-driving your head lights", "bumping chasing", "riding the clutch". 5. An examination of the personality factors in the "accident prone" driver. 6. Preparation of graphs to show distance required to stop a car at different speeds. 7. An examination of the relationship that exists between the various users of the highways: motor driver, cyclists and motor-cyclists, and pedestrians. <p>Motorized farm machinery is often encountered on the highway. Due to size and general shape these machines present special difficulties to the motorist. The class might list safety measures that the farmer can use to reduce the possibilities of accidents occurring.</p>

ADDITIONAL SOURCES

S-ref: **Health and Safety for You:** Diehl and Laton, Pages 18-26, 30-32, 36-40, 359-360.

S-ref: **Enjoying Health:** Jones, Pages 256-261, 393-395.

S-ref: **Understanding Health:** Goldberger and Hallock, Pages 387-389, 396-403, 408-410, 441.

T-ref: **Health Observation of School Children:** Wheatley and Hallock, Page 14.

SBB-so: **Your Safety Manual: Andrews,** Life Adjustment Booklet (48 pages).

Booklets and pamphlets—available from the Alberta Safety Council, 2-10526 Jasper Avenue, Edmonton, Alberta:

How's Your Driving (12 pages), Metropolitan Life Insurance Company;

Good Drivers Always Signal (leaflet), **Guide to Good Driving, Accidental Deaths of Farm Residents**, 1955 (leaflet), **Ride for Your Life—the Safety Code of Johnny Handlebar** (14 pages), **Tractor Safety** (leaflet), Alberta Safety Council.

Posters and Pamphlets available from the Alberta Motor Association, 109 St. & Kingsway Avenue, Edmonton: **Alberta Drivers' Manual.**

APPENDIX I

APPENDIX I

METHODS OF APPROACH

The approach suggested in the Health Course seeks to encourage student expression in various ways, with considerable emphasis on group procedures. The purpose is to provide the opportunity for growth in individual understanding through discussion of questions of common interest to the group. **Every opportunity should be taken to encourage independent reading, research and reporting.** It is felt that teachers will benefit from a brief analysis of group procedures. Group methods when properly used encourage sound thinking by the individual.

A. Benefits Arising from Group Procedures

Every effort should be made in these courses to encourage group work, one of the major aspects of which is group discussion. Group discussion has several important advantages.

1. It offers reassurance to the student by showing him that other persons are concerned with many of the problems that concern him.
2. The interaction which occurs among members of a group stimulates the individual members to clarify their own thinking. The person who takes part in discussions is more active mentally than the person who simply looks on or only listens, and as a result learns from the participation.
3. The bringing out of different points of view shows that there may be many approaches to a question and thus encourages a tolerance of the other person's opinion.
4. Since teen-age young people count acceptance and approval of their own groups as very important, the ideas that are agreed upon by the groups hold peculiar appeal and are likely to lead to action.
5. Practice in participation, and leading discussions makes one better able to present ideas before a group and so helps to train for leadership.
6. This entire process of group thinking—the comparing of ideas, the reshaping of one's own thinking to conform to the merit he sees in the ideas of others, working through a collection of individual opinions to a synthesis that is better than any one viewpoint, is the essence of the democratic process, and constitutes a basic experience in democracy.
7. The individual should be encouraged to evaluate soundness of his own thinking and be prepared to defend it when he is convinced it is correct.

B. Group Techniques

1. Hints for Planning Helpful Group Discussion

- a. Each member of the group is as important as any other member. Therefore, all should take part in the planning and the discussion. This means that care should be exercised to prevent a few from doing all the talking. Members should develop the art of listening.

- b. In the planning stage, purposes and possible goals should be listed, and frequent reference made to these goals.
- c. Comments should be brief and to the point. However, reports by individual members naturally vary in length. It should be borne in mind that the discussion is a sharing of ideas, experiences, and opinions about some common problems.
- d. Assistance should be given the chairman or discussion leader in keeping the group on the topic. Rambling is time-consuming.
- e. Some preparatory thought should be given by members to the particular topic for discussion so that significant contributions can be made. Members must also be prepared to assume responsibility for special assignments.
- f. Members should feel free to suggest to the leader various problems which they think the group might discuss. The problem should be one relating to the general topic and of general interest.
- g. It should be apparent that most members are willing to co-operate in order to make the study-group sessions as helpful as possible. It is obvious that group thinking requires concentration and close attention on the part of each student.
- h. The group should consider carefully various sources from which further information can be obtained, such as informed people and reference materials.
- i. Members will find it helpful to keep a notebook in which to record decisions, suggestions, and plans made as a result of group discussions.

2. The Problems Approach

The course in Health should be as much "pupil-centred" as possible; the teaching suggestions to be found in each unit have been developed with this in mind. In order to encourage pupil participation every effort should be exerted to see that the activities are made real to the students. It is, therefore, suggested that topics be stated as specific problems when possible.

The "problems" approach encourages critical thinking. The usual procedure is to state the problem, search for facts that have a bearing on it, and draw conclusions. In stating the conclusions one must consider carefully the implications and be able to determine how valid the conclusions are. Facts are very important—without them no reliable thinking can take place,—but the interpretation of facts is equally important and must be emphasized in the educative process. Hence, the emphasis is on the gathering of facts and their interpretation.

3. Special Group Techniques

a. The Discussion Lesson:

Probably the most useful of these techniques is the discussion lesson directed by the teacher. Here the teacher must develop a skill in questioning that will promote good thinking by the group. Such questioning generally results from careful planning and should aim at opening the topic to encourage clear thinking by the class. The discussion will be stimulated by further questions if it lags. The teacher should endeavor to prevent a student from feeling that he is occupying the center of the stage, and should attempt to create the impression that he is merely one of the group.

b. The Open Forum:

In the open forum the class as a whole participates under the chairmanship of a student. Class periods devoted to a discussion of the duties and responsibilities of chairmen should prove of value. Those who are first asked to assume this position should receive special coaching. Every effort should be made to include as many members of the class as possible before the year's work is finished. Recorders or secretaries should also be appointed for the open forum sessions to sum up the results at the conclusion of the period. These minutes can be placed in a loose-leaf book for future reference by students and by new secretaries prior to assuming office for a specific class session.

c. The Panel Discussion:

The panel discussion is usually confined to a small group of participants (generally three to six in number) who develop the topic before it is discussed by the class as a whole. Pupil preparation prior to class discussion of the topic is essential. Each member of the panel brings forward his opinions or material in a brief period of time and, when all members have spoken, each may be asked to defend what he has said. The panel is also a technique that will require instruction and practice. Pupils' attention should be drawn to the many types of forums and panels heard over the air, or seen on television, most of which are good examples of group thinking.

d. The Symposium:

The symposium is a method in which a general topic is assigned and students asked to speak to it or prepare individual reports for oral presentation. To ensure adequate treatment it will probably be necessary to arrange that several periods be reserved since the reports of all students must be heard. A recorder should be appointed to serve until the group has disposed of the topic. He should be asked to submit at the beginning of each period a brief report of what was discussed in the previous session.

e. The Debate:

The debate may be used occasionally, especially if the topic to be discussed is one in which there seem to be two pronounced viewpoints evident in the class. It should prove useful as a means

of impression upon the class the value of properly thought-out argument and the need for appreciation of the other person's opinion. Steps might be taken in conjunction with the teacher of English to produce a well-planned argument in debate form on occasion. Material on debating technique and form may be obtained from textbooks or manuals of English expression.

It is not intended that the foregoing explanation of special group techniques is to be considered as either authoritative or complete. The purpose is only to give an overview of some techniques.

C. Other Techniques

Teachers will be well advised to check Bulletin 2 of the elementary program and the curriculum guides in general science and social studies-language for the junior high school grades to obtain suggestions relative to methods of presenting material. It should be possible for the teacher with the assistance of his pupils to plan an approach that will be both interesting and varied.

Some techniques, devices and methods

1. Individual **reading**, assigned reading, and **reporting**.
2. Group and individual **projects**, such as
 - a. Building a library of reference material from pamphlets, booklets, and other references given in this course, and from current periodicals and newspapers.
 - b. Health projects related to the community.
 - c. Preparation of simple experiments, charts, and posters to illustrate specific topics.
 - d. Preparation of growth charts and nutrition score sheets.
 - e. Correlation of course content with other subject fields, e.g., health problems of other nations, such as those associated with industries in tropical countries.
3. Preparation of individual and class scrapbooks. These are particularly valuable in assembling current literature on particular health topics.
4. Maintenance of bulletin boards and preparation of **display materials**.
5. Detailed analyses of industries, including health hazards and safety measures.
6. Use of **visiting speakers** for Student Union meetings to present special phases of the health program; e.g., staff of local Health Department might present a community health problem.

7. Use of **audio-visual material** with proper employment of student committees. (Note in Audio-Visual catalog).
8. Examination of **radio and television programs** for series and special broadcasts and telecasts.
9. Use of devices for social grouping where the teacher has had special training and sees the need for such groupings in the classroom situation.
10. Use of the **drama and role playing**. It is human nature to act out a part and this play-acting cannot be confined to any age group. Adults, governed by a more-or-less conventional code of behavior, are required to change their behavior according to the demands of the particular situation. The successful story teller is the one who can dramatize the incident he is recounting; the successful hostess always makes her guests feel at home and overlooks peculiarities of behavior; the speaker on the public platform brings his audience with him by means of various devices and techniques, long tried and proven successful. Play-acting can be applied to the learning situation as an easily understood and successful method of approach. Certain topics lend themselves to this kind of treatment. Group problems of mutual concern admit of ready understanding and general discussion if portrayed before the class. In fact, almost any area suggested in these courses lends itself to such treatment. This method is called the **sociodrama**.

To make for the freedom of expression necessary to a role-playing situation the following basic principles are essential:

1. The situation must be representative of the problems of the group members.
2. The majority of the group must want to explore the situation.
3. The teacher must be willing to have the problem explored. If he is not as enthusiastic as the students, the latter may hesitate to express themselves freely or they may give the version of the problem they think he wants.

This sociodrama technique can be considered as having five main steps, all of which are necessary for maximum group participation and may occur at varying times as the drama is planned and devised.

1. Volunteering of participants.
2. The "warming up" of participants.
3. Free ventilation of feeling and reaction of group members and the players.
4. Analysis by group members and players.
5. Summary and recommendations by group members.

In practice, these steps often merge or flow naturally into one another, and the different steps may have less or greater importance, depending upon the significance of "content" to the group.

Certain advantages should accrue to the students who participate in such activities. The natural desire to project themselves into another situation, more or less unreal, should find ready response. With experience, many of the more reticent students can gain in confidence and in ability at self-expression. The socializing effects should lead to better understanding amongst students and many of the personality problems may be solved as a result of this understanding.

Illustrations of this technique can be found in many of the books suggested for either student or teacher use in this course. The 1950 Yearbook of the Association for Supervision and Curriculum Development, "Fostering Mental Health in Our Schools," contains an excellent chapter on the socio-drama.

SPECIAL ACTIVITIES

Teachers will develop methods of approach to the program according to the interests and aptitudes of their students and their own special abilities. An explanation is offered below of activities that might prove useful on occasion. They are offered for purposes of illustration and to provide something in the way of suggestion.

Special Committees

a. Participation in local and national safety and health campaigns can do much to increase interest and add motivation to the work that is being done in certain areas of the course. Topics can be discussed prior to, or during various "national" weeks with a resultant increase in interest, due to the timeliness of the discussion. Responsibility for directing this participation can be assigned to committees, the membership of which can be changed at intervals.

b. A teacher-pupil planning committee serves at least two worthwhile purposes:

To encourage students to appreciate that they have a responsibility for selection of topics and the approach to be used, and to provide them with opportunity for gathering together for class use all materials that are available relative to the topics selected. Membership on this committee would also change at regular intervals.

c. A class recording committee can serve the useful function of providing for a class "log" of the work accomplished. Such a record can be used by students for review purposes. Again, the membership should change on a regular basis with no one student or committee serving too often.

Student Reporting

Students need careful direction and help in preparing, presenting, and summing-up reports. The ability to give a good report is not inborn in the child. **Reporting constitutes a learning situation; therefore, the teacher must assume some responsibility for developing this skill.**

1. Assigning the Report and Helping with Its Planning

- a. The students, with the help of the teacher, will choose report topics suited to their interests and ability levels.
- b. The individual assignment or report topic should be clearly defined and limited in scope.
- c. The students should be directed to specific and available references. (Every effort should be made to provide a variety of references.)
- d. In the early stages of unit study learning, class time should be used in order to indicate to the students what a good report should include.

2. Presenting the Report

- a. The teacher should help the child to make the report "his own". If the student cannot give a report in his own words, it is of questionable value.
- b. Mass copying of material from books, or memorizing text material for reports is to be avoided. If a student makes brief quotations, he should indicate this fact.
- c. Students should not be expected to copy great masses of teacher-written or pupil-written notes from the blackboard.
- d. Students may use brief notes or a summary outline to guide their talk.
- e. The student may write on the blackboard five or six questions which he proposed to answer in the body of his report.
- f. The length of a report depends on student ability, the topic in hand, material available, and general interest.
- g. Reports should be varied and informal. The formal type of introduction may be used occasionally to acquaint the students with this method; if used to excess, however, it becomes monotonous.

Note: The teacher should enrich the report by

- i. contributing interesting new material
- ii. stressing important points
- iii. directing a summary

3. Appraising the Report

- a. The report should be carefully evaluated for good oral expression and the manner in which the report is given. It should have an interesting introduction, good sentence structure, stress on main facts or points and a fitting conclusion.

- b. The teacher should observe carefully the class reaction to the report.
- c. Class understandings may be tested by means of oral questioning, paragraph writing, or objective tests.
- d. The following questions might be posted on the bulletin board or in conspicuous chart form for constant reference and use by teacher, report leaders, chairmen and reporters:
 - i. Did you clearly define the topic?
 - ii. What were the sources of information?
 - iii. Was use made of the blackboard, pictures, sample, or diagrams to make the report more vivid?
 - iv. Was the topic or assignment organized in simple language around four or five main ideas or facts?
 - v. Was correct English used?
 - vi. Were ideas rather than words emphasized?
 - vii. Was the report interesting to the class throughout?
 - viii. How was the report evaluated to determine class knowledge and understanding?

APPENDIX II

APPENDIX II

ADDITIONAL REFERENCES

The attention of principals and teachers is directed to the following reference materials which will prove very useful to teachers of this course. These may well be obtained at the beginning of the year. Some of the material is available without charge; otherwise the price may be obtained by writing to the source. Unless otherwise noted, all books may be ordered from the School-Book Branch. Though this list may appear somewhat lengthy much of it is in the form of pamphlets.

Note: In this appendix, Roman numerals indicate the grade and Arabic numerals the units to which the references apply. This change in the form of numbering from that used in the units themselves is for brevity.

KEY TO SYMBOLS USED WITH REFERENCE MATERIALS

- *: has been distributed by the Guidance Branch. A copy should be available in the school.
- DPH: available from the Department of Public Health, Administration Building, Edmonton.
- GB: available from the Guidance Branch, Department of Education, Administration Building, Edmonton.
- FA: a few copies are available until present stocks are exhausted.
- SBB-so: obtainable from the School Book Branch, Department of Education, Edmonton, on special order.
- (1): the number in the brackets refers to the number of copies **per classroom** available for distribution.
- S-ref: secondary reference book
- T-ref: teachers' reference book
- S-lib: may be in school library because it is or has been on the reference list for some other grades or subjects.

SECONDARY REFERENCE BOOKS

A brief outline of each of these secondary reference books may be found in the introduction to this curriculum guide.

Understanding Health: VII—1, 2, 3, 4, 5; VIII—1, 2, 3, 4, 5; IX—1, 2, 3, 4, 5.

Enjoying Health: VII—1, 3, 4, 5; VIII—1, 2, 3, 4, 5; IX—1, 2, 3, 4, 5.

Health and Safety for You: VII—1, 3, 4, 5; VIII—1, 2, 3, 4, 5; IX—1, 2, 3, 4, 5.

First Aid to the Injured: VII—5, VIII—5.

TEACHERS' REFERENCE BOOKS

Health Observation of School Children: Wheatley and Hallock, Grade VII, Units 1, 3, 4, 5; VIII—1, 2, 3, 4, 5; IX—1, 2, 3, 4, 5.

SCHOOL LIBRARY BOOKS

1. Books of reference lists of other subjects for the same grade.

Prose and Poetry for Canadians—Journeys (Literature). Grade VII, Unit 2.

2. Health reference books from lower grades.
Students may make good use of these resources as the particular topics were not taken in the grade for which the book is a reference.

Good Health for Better Living: Jones (Grade VIII): IX—3.

3. Books from reference lists of higher grades. These books are intended as teachers' references.

Health for You: Crisp (Grade X): Grade VII, Units 1,3,4; VIII—1, 3, 5.

Across the Ages: Capen (Grade IX Social Studies): VII—2.

Microbe Hunters: de Kruif (formerly listed in Invitation to Read for Senior High Schools): VII—2.

SBB-so: (SCIENCE RESEARCH ASSOCIATES PUBLICATIONS).

1. Junior Life Adjustment Booklets

Your Safety Handbook: Dearborn: VIII—5.

How You Grow: Neugarten: VIII—2.

2. Life Adjustment Booklets

Your Safety Manual: Andrews: IX—5.

3. Modern World of Science Booklet

How Long do You Want to Live? Burnett: Grade IX, Unit 2.

HEALTH EDUCATION BRANCH, DEPARTMENT OF PUBLIC HEALTH, Administration Building, Edmonton, Alberta.

These materials are available without charge:

Help Yourself to Health: Grade VII, Unit 1.

Canada's Food Rules: VII—3, 4; VIII—3.

Teen Agers' Tooth Test: VII—1.

Score Yourself: VII—3.

Grist for the Teacher's Mill: VII—2, 4; VIII—2.

New Way to Save a Life: VII—5.

Cancer — a Manual for High School Teachers: VII—2; VIII—3.

What You Need to Know About T.B.: VII—3.

Communicable Disease Regulations Chart: VII—3.

- Chicken Pox:** VII—3, VIII—3.
Scarlet Fever: VII—3; VIII—3.
Measles: VII—3; VIII—3.
Whooping Cough: VII—3, VIII—3.
Arthritis: VII—4.
The Truth About Food and Drug Labels: VII—2.
Safe to Take: VII—5.
Disinfection: VIII—3.
Understanding Your Teen-Ager: IX—1.
Emergency First Aid Kit: VIII—5.
Your Family's Safety: VII—5.
Ear Troubles: IX—1.
You're a Young Lady Now: IX—1.
Very Personally Yours: IX—1.
Alberta's Health Services Program: IX—2.
Domestic Sewage Disposal: IX—3.
Safe Milk: IX—3.
Rural Waters: IX—3.
Raw Milk: Undulant Fever: IX—3.
Protection of the Community's Milk Supply: IX—3.
Disposal of Community Wastes: IX—3.
The Spotted Fever Tick in Alberta: IX—3.
Tick Borne Diseases of Man and Methods of Prevention: IX—3.
The Rat, an Expensive and Dangerous Pest: IX—3.
Control of Houseflies and Mosquitos: IX—3.
Your Heart: IX—4.
Diseases Communicated By Intestinal Discharges: VIII—4, IX—3.

**NUTRITION SERVICES, DEPARTMENT OF PUBLIC HEALTH,
Administration Building, Edmonton, Alberta.**

These materials are available without charge:

- Diabetes:** VIII—2.
Healthful Eating (Teachers Reference): VIII—4.
Good Red Blood: VII—4; IX—4.
Guide to Better Nutrition Chart: VIII—4.
Facts About Foods: VIII—4.
How to Control Your Weight: VIII—4.
Hidden Calories that Tip the Scales: VIII—4.
Lunch Box Briefs: VIII—4.
The Noon Meal: VIII—4.
For a Prettier, Peppier You!: VIII—4.

**GUIDANCE BRANCH, DEPARTMENT OF EDUCATION,
Administration Building, Edmonton.**

These materials are available without charge:

* **Questions and Answers on Smoking:** Grade VII, Unit 1.

*FA: **Do You Know These Facts about Vision and School Achievement:** VII—1.

FFA: **The Story of Healing:** C-I-L Oval: VII—2; VIII—3.

* **Points to Remember in Artificial Respiration:** VIII—5.

* **Fire Prevention Education:** VIII—8.

* **Manual of Civil Defence:** VIII—8.

**COMMUNITY RECREATION BOARD, DEPARTMENT OF
ECONOMIC AFFAIRS, 2nd Floor, Alberta Block, Edmonton.**

FA*: **Posture's Important When You're in Your Teens:** Grade VII, Unit 1.

When their free supply is exhausted, obtain from Queen's Printer, Ottawa at 10¢ per copy.

**DOMINION BUREAU OF STATISTICS, Department of Trade and
Commerce, Ottawa.**

Canada Year Book: Grade VII, Unit 3.

Summary of Vital Statistics, reprinted annually from Canada Year Book (25¢).

Public Health, Welfare and Social Security, reprinted annually from Canada Year Book (25c).

**DEPARTMENT OF NATIONAL HEALTH AND WELFARE, Ottawa
Canada's Health and Welfare (free monthly).**

QUEEN'S PRINTER, Ottawa

* **Dental Health Manual,** Grade VII, Unit 1.

* **Posture's Important When You're in Your Teens (10¢):**
Grade VII, Unit 1.

ALBERTA SAFETY COUNCIL, 2—10526 Jasper Avenue, Edmonton.

Free materials available:

Guide to Good Driving: IX—5.

Safety Afloat: VIII—5.

Ride for Your Life—the Safety Code of Johnny Handlebar:
VIII—5; IX—5.

How's Your Driving: IX—5.

Good Drivers Always Signal: IX—8.

Accidental Deaths of Farm Residents: IX—5.

Tractor Safety: IX—5.

Never, Never Be a Dodo: VII—5; VIII—5.

ALBERTA MOTOR ASSOCIATION, 109 St. and Kingsway Avenue, Edmonton (or local office).

Free pamphlets and posters also recommended for the course in Community Economics.

School Safety Patrol

Traffic Safety Guides

Safety Posters

Your Guide for the Traffic Safety Program (Teacher Reference)

CANADIAN JUNIOR RED CROSS, 1504 - 1st Street East, Calgary.

Secondary School Guide to Junior Red Cross: (free), Grade VII, Unit 2.

CANADIAN RED CROSS SOCIETY, Calgary and Edmonton.

Read This: (free): Grade VII, Unit 5.

Help Prevent Drownings: (free): VIII—5.

The Story of Blood: (free): IX—4.

Water Safety Manual—50¢: VIII—5.

Save a Life: VIII—5.

ALBERTA TUBERCULOSIS ASSOCIATION, Edmonton.

Free pamphlets and posters.

CANADIAN NATIONAL INSTITUTE FOR THE BLIND, Calgary and Edmonton (free).

Snellen Eye Chart.

HEALTH LEAGUE OF CANADA, 111 Avenue Road, Toronto.

Heroes of Health (5¢): Grade VII, Unit 2.

Health Facts (10¢): VII—3, 5.

**FOOTWEAR INSTITUTE OF CANADA, 2081 Aylmer Street,
Montreal.**

Foot Health (Free): Grade VII, Unit 4.

How to Buy Shoes (Free): VII—4.

FILMS AND FILM STRIPS

Additions to the film library of the Audio-Visual Aids Branch of the Department of Education are made from time to time in the health field. Films in this area are also available from the film library of the Department of Public Health. No attempt has been made to give titles and catalog numbers to these films in this curriculum guide. Schools are referred to the catalogs issued by these libraries.

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